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PANAMA CANAL COMMISSION

ANNUAL REPORT



FISCAL YEAR ENDED SEPTEMBER 30, 1984

PANAMA CANAL COMMISSION

Balboa, Republic of Panama
OFFICE OF THE ADMINISTRATOR

FROM THE ADMINISTRATOR

It is a pleasure to submit the annual report of the Panama Canal Commission, for fiscal year 1984, our fifth year of successful operation under the Panama Canal Treaty, and the year in which the Canal organization celebrated the seventieth anniversary of the opening of the Canal.

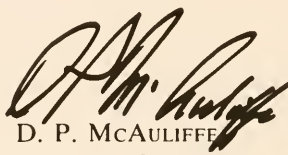
The recession in maritime trade and the loss of Alaska North Slope (ANS) oil traffic combined to make fiscal year 1984 one in which all major elements of Canal traffic declined. Nevertheless, the Commission continued to recover all costs from revenues in 1984, and ended the year with a small positive balance. This was due to effective cost-reduction efforts as well as to the full-year effect of a modest toll rate increase in March 1983.

Looking to a future in which Canal traffic is expected to increase, and taking advantage of current low traffic levels, management continued a capital program including improvements difficult to accomplish at higher levels of traffic such as channel dredging in the narrow Gaillard Cut where the Canal passes through the continental divide. This year the Commission also completed work on a new Tug/Miter Gate Repair Facility and a new Marine Traffic Control closed circuit television (CCTV) vessel surveillance system. The latter will permit monitoring activity at critical locations along the length of the Canal and result in a safer operating environment for

Canal users. Canal equipment continued to be maintained at a high level or replaced with technologically improved equipment as necessary.

Attention to the equally important human side of the enterprise, the key to the future of the Canal, is shown by the considerable resources which were dedicated to training. Emphasis on training, in order to effectively increase participation by Panamanians at all levels of the Commission, continued to receive priority attention. Panamanian citizens now comprise approximately 78 percent of the work force and are increasingly involved at all management levels.

Please be assured that we at the Commission will continue to meet the challenges of the future in carrying out our mission of providing cost-effective, safe and efficient transit service to the maritime industry.



D. P. McAULIFFE
Administrator.

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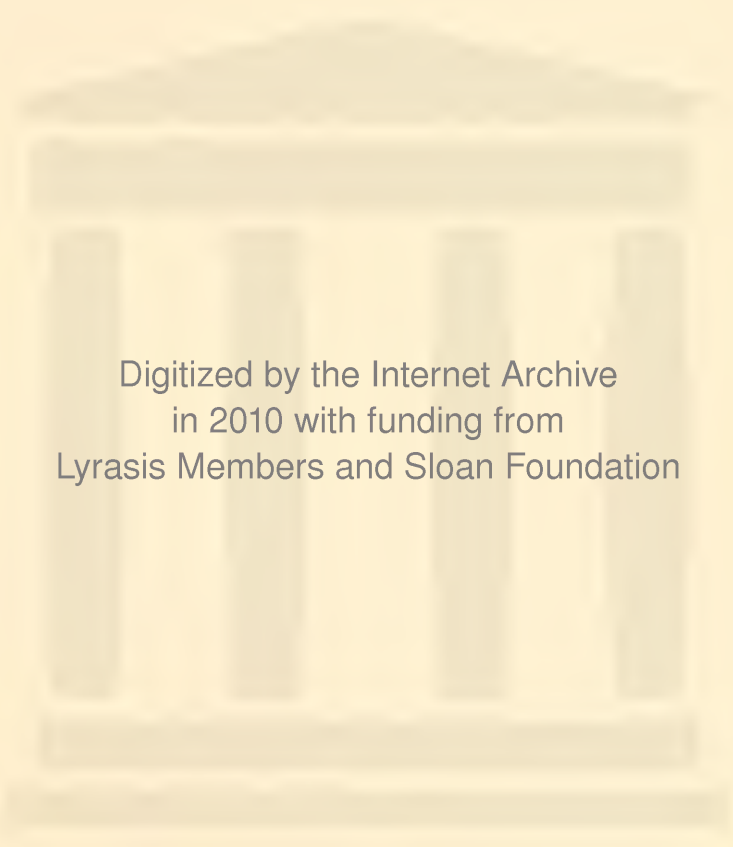
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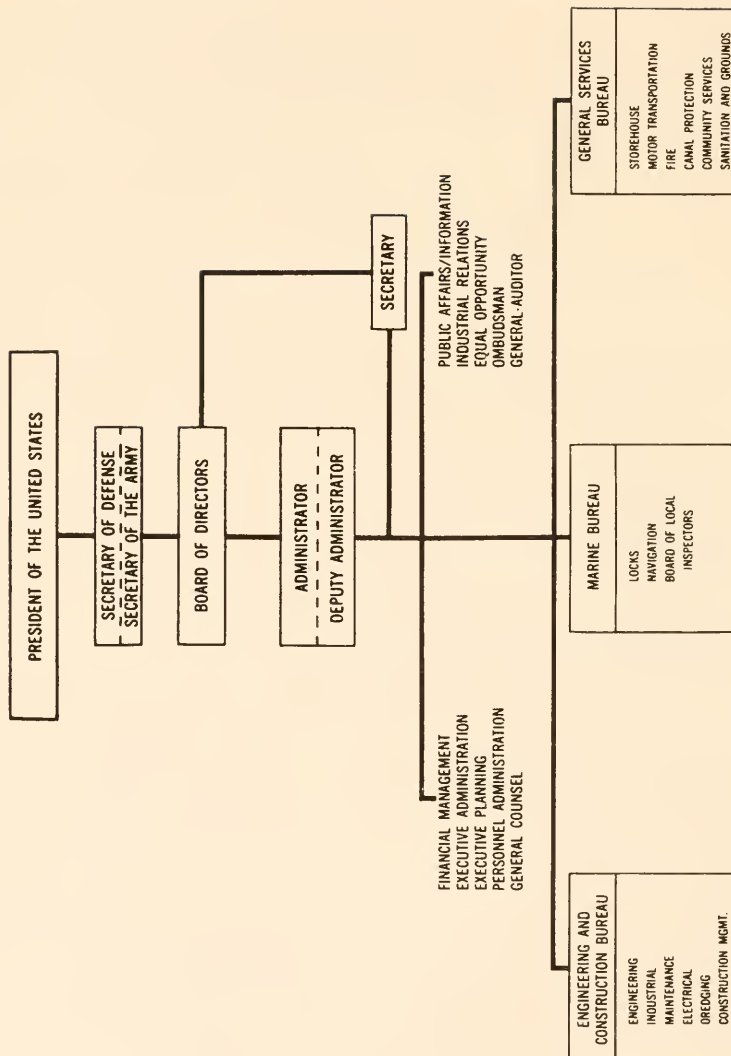
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PANAMA CANAL COMMISSION



September 1984

INTRODUCTION

ORGANIZATION

The Panama Canal Commission is an agency of the Executive Branch of the United States Government, provided for by the Panama Canal Treaty of 1977, and established by the Panama Canal Act of 1979 (93 Stat. 452; 22 U.S.C. 3601 et seq), enacted September 27, 1979. The authority of the President of the United States with respect to the Commission is exercised through the Secretary of Defense and the Secretary of the Army. The Commission is supervised by a nine-member Board. Five members are nationals of the United States and four are Panamanians. Board members who are U.S. nationals are appointed by the President with the advice and consent of the Senate.

The Commission was established to carry out the responsibilities of the United States with respect to the Panama Canal under the Panama Canal Treaty of 1977. In fulfilling these obligations, the Commission manages, operates, and maintains the Canal, its complementary works, installations, and equipment, and provides for the orderly transit of vessels through the Canal. The Commission will perform these functions until the treaty terminates on December 31, 1999, when the Republic of Panama will assume full responsibility for the Canal.

The Commission is expected to recover through tolls and other revenues all costs of operating and maintaining the Canal, including interest, depreciation, capital for plant replacement, expansion and improvements, and payments to the Republic of Panama for public services and annuities, in accordance with paragraph 5 of Article III and paragraphs 4(a) and (b) of Article XIII, respectively, of the Panama Canal Treaty of 1977. Revenues from tolls and all other sources are deposited in the U.S. Treasury in an account known as the Panama Canal Commission Fund. Appropriations for operating expenses and capital improvements are enacted annually by the Congress and are limited to the sum of the estimated receipts for the year, plus any unexpended balances in the Panama Canal Commission Fund.

THE CANAL

The Panama Canal is a lock-type canal approximately 51 miles long from deep water to deep water. The minimum width of the navigable channel is 500 feet. Navigable channel depth varies according to the amount of water available in Canal storage areas. The normal range of permissible transit draft is from 38 feet to 39 feet 6 inches tropical fresh water.

Vessels transiting the Canal are raised in three steps to the level of Gatun Lake, the principal source of Canal water, then lowered to sea level again in three steps. The three sets of Canal locks are paired so as to permit simultaneous lockage of two vessels in the same direction or in opposite directions.

Since August 15, 1914, the official date of its opening, the Panama Canal has served world trade virtually without interruption. Through this fiscal year, a total of 638,033 vessels of all types have transited with 534,569 or 83.8 percent of the total being of the oceangoing commercial class.

TOLLS RATES

Panama Canal tolls rates were increased approximately 9.8 percent on March 12, 1983. Tolls rates are: (a) On merchant vessels, Army and Navy transports, tankers, hospital ships, supply ships, and yachts, when carrying passengers or cargo: \$1.83 per net vessel ton of 100 cubic feet of actual earning capacity. Such tonnage is determined in accordance with the "Rules of Measurement of Vessels for the Panama Canal;" (b) on such vessels in ballast, without passengers or cargo: \$1.46 per net vessel ton; and (c) on other floating craft: \$1.02 per ton of displacement.

By treaty, the United States continues to provide to Colombia free transit through the Canal of its troops, materials of war, and ships of war.

BOARD OF DIRECTORS **Ending Fiscal Year 1984**

Honorable WILLIAM R. GIANELLI,
Chairman, Board of Directors
Panama Canal Commission
2000 L Street, N.W., Suite 550
Washington, D.C. 20036

Honorable ANDREW E. GIBSON
Short Hills, New Jersey

Honorable OYDEN ORTEGA
Minister of Foreign Relations
Panama, Republic of Panama

Honorable LUIS A. ANDERSON
Secretary General
Interamerican Regional Labor
Organization
Postal Box 7039
Mexico, D.F. 0600

His Excellency CARLOS OZORES
Vice President
Panama, Republic of Panama

Honorable JOHN A. BUSHNELL
Deputy Chief of Mission
U.S. Embassy
Buenos Aires, Argentina

Honorable WILLIAM SIDELL
Poway, California

Honorable FERNANDO CARDOZE
Panama, Republic of Panama

Honorable WILLIAM W. WATKIN, Jr.
Beaufort, South Carolina

Executive Committee

Honorable WILLIAM R. GIANELLI,
Chairman
 Honorable FERNANDO CARDOZE
 Honorable OYDEN ORTEGA
 Honorable WILLIAM SIDELL
 Honorable WILLIAM W. WATKIN, Jr.

Cut Widening Feasibility Committee

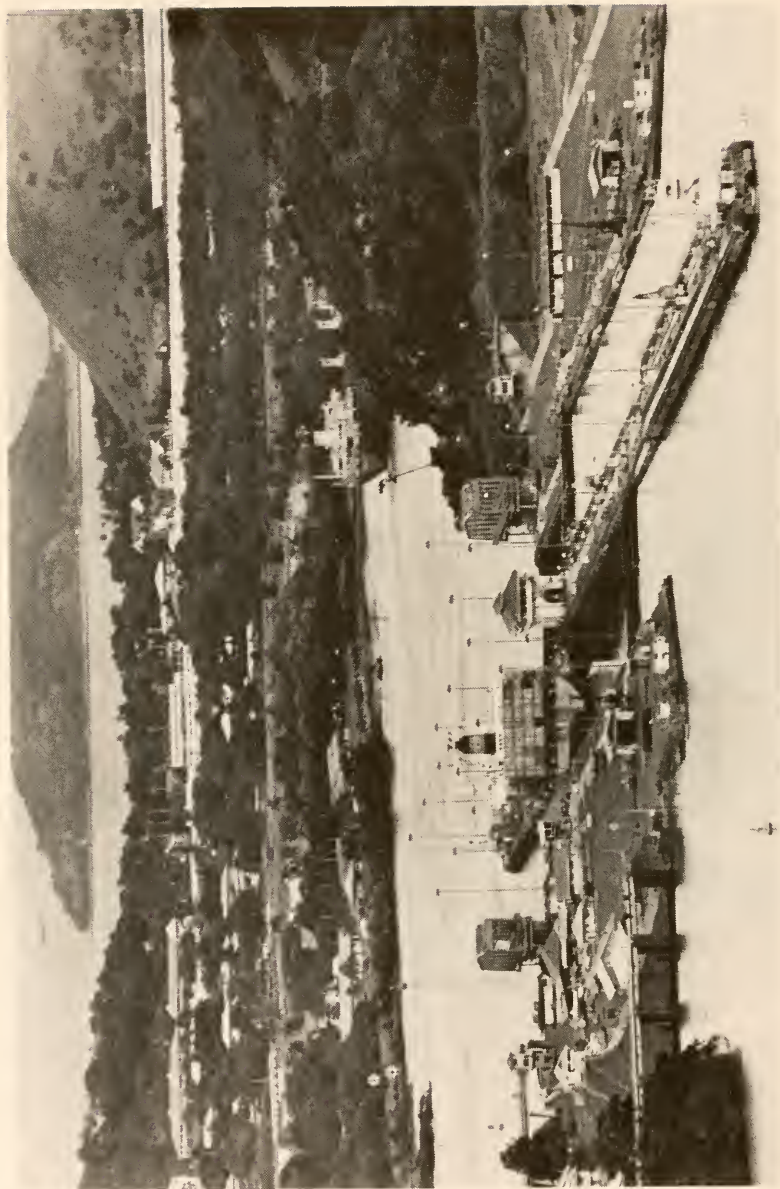
Honorable FERNANDO CARDOZE,
Chairman
 Honorable ANDREW GIBSON
 Honorable OYDEN ORTEGA
 Honorable WILLIAM W. WATKIN, Jr.

OFFICIALS IN THE REPUBLIC OF PANAMA

Administrator Honorable D. P. MCAULIFFE
Deputy Administrator Honorable FERNANDO MANFREDO, Jr.

OFFICIALS IN WASHINGTON, D.C.

Secretary MICHAEL RHODE, Jr.



LARGE SOUTHBOUND VESSELS AT MIRAFLORES LOCKS
—a view which includes Miraflores Swing Bridge, Balboa and the Pacific Anchorage.

Chapter I

CANAL TRAFFIC

TRAFFIC

All major elements of Canal traffic declined during fiscal year 1984 from the already depressed levels registered in the prior year. Tolls revenue, however, increased due to the full-year impact of the toll rate increase implemented March 12, 1983. The full-year effect of the loss of the Alaska North Slope (ANS) oil and the continued recession in maritime trade through the first half of the year were the major factors in the traffic drop experienced during the year.

Oceangoing transits in fiscal year 1984 decreased 3.9 percent to 11,384 or 31.1 vessels daily from 11,846 or 32.5 daily the prior year. Vessels owned or operated by the U.S. Government and free Colombian and Panamanian Government vessels made 154 transits during the year compared with 139 transits in fiscal year 1983.

Growth in ship size was not evident during fiscal year 1984, as a result of a decline in transits by large tankers and PANAMAX size vessels carrying grains and coal. Transits by vessels having beams of 80 feet and over accounted for 5,496 or 48.3 percent of total oceangoing transits compared with 5,869 or 49.5 percent of total oceangoing transits in the prior year. In fiscal year 1984, vessels having beams of 100 feet and over declined 8.5 percent to 2,170 or 19.1 percent of total oceangoing transits from 2,371 or 20 percent of total oceangoing transits in fiscal year 1983. Average size of oceangoing commercial transits, in terms of Panama Canal net tonnage, also declined slightly. Oceangoing commercial vessels averaged 14,461 Panama Canal net tons in fiscal year 1984 compared with 14,485 in 1983.

Total Panama Canal net tonnage dropped 4.0 percent to 163.8 million in fiscal year 1984 from 170.7 million tons in the prior year. Despite the decline in Panama Canal net tonnage, tolls revenue rose 0.5 percent to \$289.2 million from the \$287.8 million of the prior year.

A two-year summary of the principal elements of Canal traffic and tolls revenue is shown in the following table:

COMPARATIVE HIGHLIGHTS OF OPERATIONS

	<i>Fiscal year</i>	
	1984	1983
Oceangoing transits:		
Commercial	11,230	11,707
U.S. Government	137	125
Free	17	14
Total	<u>11,384</u>	<u>11,846</u>
Daily average	31.1	32.5
Small transits:		
Commercial	802	810
U.S. Government	241	242
Free	96	56
Total	<u>1,139</u>	<u>1,108</u>
Total cargo:		
Commercial	140,471,470	145,591,428
U.S. Government	329,607	354,878
Free	59	2,512
Total	<u>140,801,136</u>	<u>145,948,818</u>
Total Panama Canal net tons and reconstructed displacement tonnage	163,833,038	170,655,341
Transit revenue:		
Commercial tolls	\$286,754,765	\$286,057,692
U.S. Government tolls	2,400,270	1,733,331
Tolls revenue	<u>\$289,155,035</u>	<u>\$287,791,023</u>
Harbor pilotage, tug, launch, and other services	58,931,942	55,381,005
Total transit revenue	<u>\$348,086,977</u>	<u>\$343,172,028</u>

COMMODITIES AND TRADE ROUTES

Oceangoing commercial cargo totaled 140.5 million long tons during fiscal 1984, with twelve key commodity groups accounting for 86.2 percent of that total. The groups, shown on page 11, have maintained relatively stable levels of importance to Canal traffic in recent years. In 1983, the proportion observed for these commodity groups was 88.4 percent.

Despite the decline in crude oil movements, petroleum and products ranked as the principal commodity group in fiscal year 1984, accounting for 21.8 percent of total oceangoing commercial cargo. Shipments of petroleum and products totaled 30.7 million long tons, down by 9.4 percent from 33.9 million long tons the prior year. Crude oil, which totaled 14.2 million tons, dropped from the 18.7 million long tons in fiscal year 1983 as a result of the full-year effect of the loss of the ANS trade. This decline was partially offset by the movement of petroleum products increasing to 16.5 million tons from 15.2 million tons in 1983.

The second major commodity group in fiscal year 1984 was grain, accounting for 20.0 percent of commercial cargo. Grain shipments totaled 28.1 million long tons, showing a substantial 23 percent decline from the 36.5 million tons registered in fiscal year 1983. Almost the entire drop in this commodity group was due to a sharp decline in the corn movement which offset a marked improvement in the wheat trade. Corn shipments were down by 56.1 percent to 9.5 million tons from the record 21.6 million tons reached the prior year. The decline resulted from a diversion of U.S. corn exports to West Coast ports, a drought which severely reduced U.S. corn production, and increased competition from Canada, Australia, and Argentina—in part, as a result of the strength of the U.S. dollar. The diversion of corn exports to West Coast ports can be attributed to a number of factors such as lower ocean rates from the West Coast during the period, railroad contract haulage rates and the effect of the drought last year in sections of the Midwest. The improvement shown by the wheat movement, which increased by 60.7 percent to 9 million long tons from 5.6 million tons the prior year, was largely due to a resumption of U.S. exports to China. U.S. exports to China via the Canal increased from 1.9 million tons to 4.2 million tons in 1984. Rice, barley, and miscellaneous grains showed increases during the year while the remaining products in the group—soybeans, sorghum and oats—reflected lower tonnages. Grain shipments from the U.S. to the Far East constituted 74.0 percent of the total movement, with Japan, China, and Taiwan being the principal destinations.

Coke and coal, the third commodity group in Canal traffic, continued depressed in 1984, dropping from the 10.7 million tons registered last year to 10 million tons. The group accounted for 7.1 percent of total oceangoing commercial cargo. The weak coal trade reflected a number of factors, including low steel production levels in Japan, a declining U.S. market share in Japanese imports, and an increase in the proportion of U.S. coal exports bypassing the Canal. Coal shipments to Japan totaled 5.5 million tons, or 55 percent of the trade, and shipments to Taiwan and South Korea accounted for 2.3 million tons, or 23 percent of the coal and coke commodity group. The coal bypass movement via the Cape of Good Hope this year was 45 percent of the total U.S. East Coast coal shipped to the Far East, compared with 40 percent in fiscal year 1983.

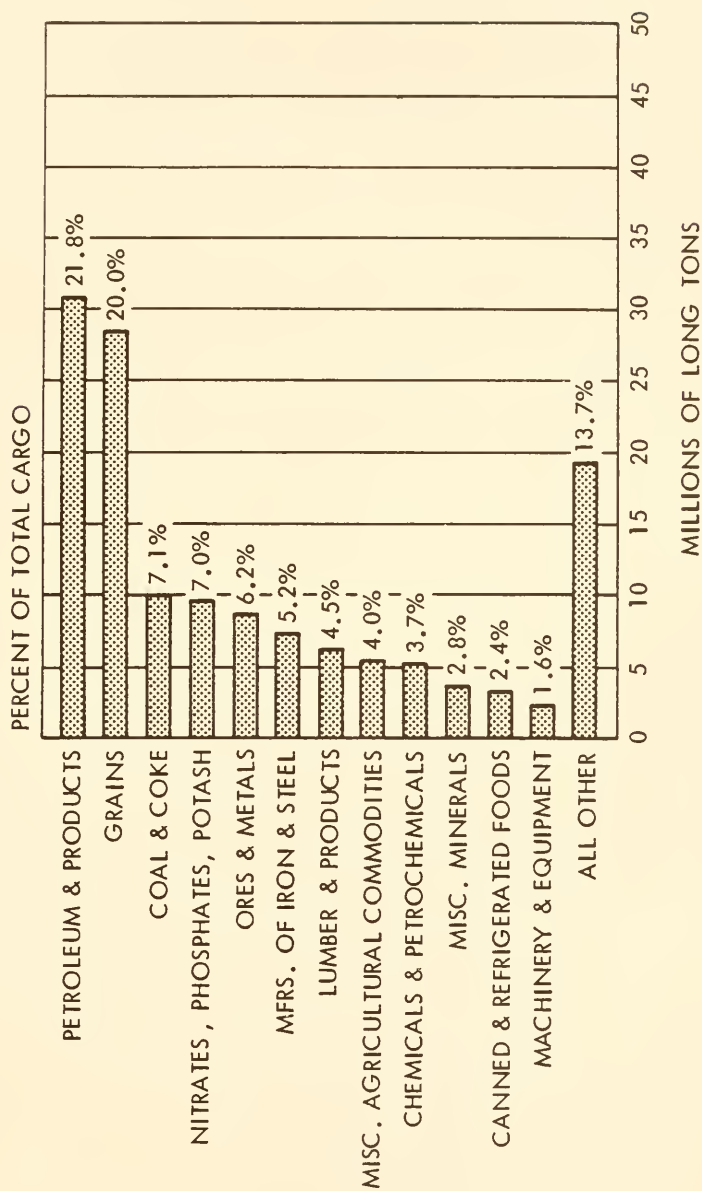
With the exception of canned and refrigerated foods, which declined by 2.9 percent to 3.3 million tons, all other major commodity groups experienced gains during the year. One notable improvement was the increase shown by manufactures of iron and steel which had been registering annual declines during the last few years. This commodity group totaled 7.3 million long tons, increasing by 40.4 percent over the prior year. Nitrates, phosphates, and potash increased by 5.3 percent to 9.9 million tons; ores and metals rose by 8.8 percent to 8.7 million tons; lumber and products was up by 8.5 percent to 6.4 million tons; miscellaneous agricultural products increased by 3.7 percent to 5.6 million tons; chemicals and petroleum chemicals rose by 4.0 percent to 5.2 million tons;

miscellaneous minerals increased by 18.2 percent to 3.9 million tons; and machinery and equipment rose by 10.0 percent to 2.2 million tons.

Trade between the East Coast of the United States and Asia continued to dominate Canal traffic, with nearly 39.3 percent of the total commercial cargo moving over this route. The total cargo tonnage plying the U.S. East Coast-Asia route declined again this year, however, from 60.3 million long tons to 55.2 million tons, a drop of 8.5 percent.

The following chart and table show the principal commodity groups moving in oceangoing commercial vessels in 1984 and a comparison of the major trade routes in fiscal years 1984 and 1983.

PRINCIPAL COMMODITY GROUPS
TRANSITING THE CANAL
OCEANGOING COMMERCIAL CARGO FY 1984



Major Trade Routes in Canal Traffic

Trade Route	Fiscal year [In thousands of tons]						Percent increase or (decrease)		
	1984			1983			Panama		
	Panama Canal Net Tons	Long Tons Cargo	Panama Canal Net Tons	Long Tons Cargo	Panama Canal Net Tons	Long Tons Cargo	Canal Net Tons	Long Tons Cargo	
East Coast United States-Asia	62,802	55,229	66,467	60,322	(5.5)	(8.5)			
East Coast United States-West Coast South America	17,039	13,379	17,401	12,866	(2.1)	4.0			
Europe-West Coast United States/Canada	14,339	14,288	13,345	12,425	7.4	15.0			
East Coast United States-West Coast Central America ¹	2,754	2,303	8,336	7,518	(67.0)	(69.4)			
Europe-West Coast South America	7,350	4,704	8,014	5,247	(8.3)	(10.4)			
U.S. Intercoastal (including Alaska and Hawaii)	5,320	4,464	5,633	4,764	(5.6)	(6.3)			
East Coast Canada-Asia	5,002	4,281	5,510	4,239	(9.2)	(1.0)			
East Coast United States/Canada-Oceania	4,218	4,864	4,472	3,824	(5.7)	27.2			
West Indies-West Coast South America	4,944	4,119	3,613	3,178	36.8	29.6			
Central American Intercoastal	4,442	4,120	3,590	3,260	23.7	26.4			
South American Intercoastal	2,657	3,061	3,328	3,590	(20.2)	(14.7)			
Europe-Oceania	3,109	2,343	3,252	2,086	(4.4)	12.3			
Subtotal	133,976	117,155	142,961	123,319	(6.3)	(5.0)			
All other routes	28,359	23,316	26,543	22,272	6.8	4.7			
Total	162,335	140,471	169,504	145,591	(4.2)	(3.5)			

¹ In Canal trade route statistics, North Slope oil originating in Alaska is shown as transshipped cargo from Puerto Armuelles, Panama, if the vessel's voyage originated there.



A STERN VIEW OF THE "BARBER TAMPA" ON ITS MAIDEN TRANSIT
—a new Roll-on Roll-off Supercarrier whose imposing ramp permits two-lane traffic.

Chapter II

CANAL OPERATIONS

Canal operations are comprised of Transit Operations and Maintenance and Related Canal Projects. The various functions are divided among a number of operating bureaus within the Canal agency.

TRANSIT OPERATIONS

Daily average transits by oceangoing vessels decreased from the 32.5 per day during fiscal year 1983 to 31.1 per day during fiscal year 1984. Average time in Canal waters increased from 20.1 hours in fiscal year 1983 to 23.3 hours in fiscal year 1984.

<i>Fiscal year</i>	<i>Vessels of 600-foot length and over</i>	<i>Percent of total oceangoing transits</i>	<i>Vessels of 80-foot beam and over</i>	<i>Percent of total oceangoing transits</i>
1984	3,865	33.9	5,496	48.3
1983	4,157	35.1	5,869	49.5
1982	5,534	39.1	7,226	51.1
1981	4,855	34.7	6,364	45.5
1980	4,598	33.8	6,089	44.7
1979	4,089	31.3	5,503	42.1

The number of vessels transiting at more than 36-foot drafts remained about the same during FY 1984 with 1,716 such vessels transiting the Canal. The maximum allowable draft remained at 39 feet 6 inches during the entire fiscal year.

Total jobs performed by Commission tugs decreased from 35,454 in fiscal year 1983 to 33,796 in fiscal year 1984.

	<i>Fiscal year</i>	
	<i>1984</i>	<i>1983</i>
Oceangoing transits.....	11,384	11,846
Tug jobs:		
Balboa	23,242	24,044
Cristobal	10,554	11,410
Tug operating hours.....	55,675	57,249



THE MADDEN DAM AND HYDROELECTRIC PLANT

—recently rewound and uprated generators provide greater power output at intermediate and lower lake levels. Madden Lake reached a record level and is shown spilling water.

MAINTENANCE AND RELATED CANAL PROJECTS

During FY 1984, Canal dredging activities were dedicated primarily to intensified efforts on the channel-deepening project. At the beginning of fiscal year 1984, approximately one third of the Canal channel required deepening to about 37 feet above sea level. During the year, the Dredges *Mindi* and *R. M. Christensen* excavated nearly 3 million cubic yards of earth and rock, leaving only ten percent of the channel-deepening project uncompleted. This project is expected to be completed early in CY 1985. In other dredging-related maintenance work, the overhaul of the dipper dredge *Cascadas* was completed at the Industrial Division's Mount Hope facility.

In conjunction with the \$4 million Pedro Miguel Locks overhaul, Miter Gates 62, 63, 64, and 65 were overhauled between November 1983 and March 1984 for the first time in twenty years. Work performed by Commission forces included renewal of miter and quoin bearing plates, pintle and jaw bushings, bottom seals, strut arms and anchor castings. Much of the work performed in the west chamber phase was similar to that done earlier in the East Chamber, including lateral culvert clean out and construction of a modified sill. Other overhaul and major maintenance work included overhaul of Caisson No. 1 and continuing work on the rehabilitation of locks locomotive tow track systems. During the fiscal year, with the installation of wingwall-knuckle pneumatic tire fenders and conversion of the Machinery Transformer Room at Gatun from 240 to 480 volts, these projects were completed at all locks.

Extensions to each side of the Locomotive Component Repair Facility at Pedro Miguel Locks were added by private contractor forces. When fully equipped and staffed, this facility's capacity to overhaul towing locomotive traction units and windlasses will be significantly increased. Six locomotives were overhauled during fiscal year 1984, and ten to twelve units are expected to be overhauled during fiscal year 1985.

A new design replacement runner (waterside prime mover), was installed in the number 1 unit at the Madden Dam Power Plant. The older units regularly suffered from cavitation damage as a consequence of operation with a greater-than-designed hydraulic head. The new design will reduce recurring repair costs and also provide greater power output, at intermediate and lower lake levels, from the recently rewound and uprated generators. Replacement of the runners in the remaining two units is expected to be completed in fiscal year 1985. At Gatun Dam, all fourteen spillway gates were overhauled in place.

The contract to provide a modern Supervisory Control and Data Acquisition System (SCADA) for electrical power dispatching is progressing. Factory acceptance tests are scheduled for completion in January 1985 and installation of equipment will begin in March 1985. Other

maintenance work, necessitated by the Mamei curve widening project, included the erection of new towers for navigational aids, range targets and lights.

Contract work on the construction of the new Tug/Miter Gate Facility at the Commission's Industrial Division in Mount Hope is complete except for correction of deficiencies. The Commission took possession prior to final acceptance of work under contract in order to be ready for the Gatun Locks overhaul which was scheduled to begin during October 1984.

Contract work on the Vessel Tie-Up Station was more than a year behind schedule when, in May of 1984, the contract was terminated and the Surety Company elected to complete the work. An experienced marine works contractor was engaged to complete the project and it is now progressing satisfactorily. The project is approximately 80 percent complete and should be finished by March 1985. The project to provide Commission Marine Traffic Controllers with a closed circuit television (CCTV) system for improved vessel surveillance along critical sections of the Canal has been completed and contractor work accepted.

Considerable miscellaneous maintenance work was accomplished as a part of treaty-mandated housing actions resulting from the relocation of transfer-of-function (TOF) Armed Forces civilian personnel and the movement of Commission personnel to core housing areas. Work on houses being transferred to the Republic of Panama on September 30, 1984, was completed on schedule and included units in Santa Cruz, Gamboa, Diablo and the Gavilan area of Balboa. The maintenance work on these housing units was limited to ensuring minimum standards of safety, serviceability, and sanitation.

Chapter III

SUPPORTING OPERATIONS

Supporting operations of the Panama Canal Commission provided essential support services to the operation and maintenance of the waterway and the Agency's facilities, as well as to other U.S. agencies on the Isthmus and to employees and their dependents. These operations included logistical services, employee services, sanitation and grounds management, transportation facilities, public utilities, fire protection, Canal protection, health and safety, and library services.

LOGISTICAL SERVICES

The Storehouse Division provided centralized procurement, inventory management, warehousing, distribution, contract administration, supply and property disposal support to Canal operations. A total of \$70 million in goods and services were procured during fiscal year 1984, including \$30.3 million from sources in Panama. Major contracting activities included approximately \$16.7 million in Bunker "C" fuel for thermoelectric power generation, \$7.8 million for light diesel fuel, \$3.4 million on a spud carriage system for the suction dredge *Mindi*, \$3.1 million for two split-hull dump barges, \$2.5 million for a harbor towboat, and \$1.0 million for premium gasoline.

Approximately \$22.4 million in Commission inventory items were issued, and \$19.3 million was obligated for new inventory purchases during the year. A total inventory of 39,364 line items with an average landed cost value of \$27,514,000 was on hand at year end. This represented a drawdown of over \$6.0 million from the previous year's level, representing high issues over purchases and an aggressive excess stock program implemented during the year.

The Excess Disposal Branch's activities included transfers to other U.S. Government agencies of equipment having an original acquisition value of approximately \$862,000, while property sold to the Government of Panama at fair market value amounted to approximately \$134,000.

The Commission continues to participate under the Military Sealift Command's contract out of the Gulf port of New Orleans, LA. Approximately 12,700 measurement tons of containerized and breakbulk cargo were shipped to the Port of Balboa under the contract. An additional 2,826 measurement tons of general cargo and vehicles were shipped under a commercial contract with an ocean freight transport service from the port of New Orleans to Las Minas, Panama, without experiencing any major problems.

COMMUNITY SERVICES

During fiscal year 1984, the Community Services Division managed employee housing, Commission-owned buildings, library services, and recreation facilities for the agency. Housing expenditures were concentrated on programs for enhancing quarters security, quarters energy conservation and preventive maintenance of aging quarters.

The Commission continued its multiyear housing management plan to concentrate its diminishing housing requirements in selected core housing areas. Implementation of the plan is enabling the Commission to utilize housing and related maintenance resources in the most cost-effective manner, while at the same time to preserve optimum housing accommodations for its eligible employees and to meet its responsibilities under the Panama Canal Treaty. A significant milestone was passed with the cessation of the five-year period, wherein certain civilian employees of the U.S. Armed Forces were entitled by the treaty to reside in Commission housing. In preparation for this event, over 700 housing relocations were mandated during the year, including some 400 transfer-of-function employees of the U.S. Armed Forces. At year's end, the use of 680 housing units (498 on the Pacific Side and 182 on the Atlantic Side) was transferred to the Republic of Panama.

The Library Services Branch is responsible for providing mission-support information and research to all units of the Commission and maintaining a special collection of library and three-dimensional materials relating to the history of the Panama Canal. On April 2, 1984, the Commission library was converted from a public library to a technical library, offering limited reference and research service to researchers and scholars and official service to the Commission.

SANITATION AND GROUNDS MANAGEMENT

Surveillance and control of biting insects and vermin capable of transmitting disease were continued in the Canal area sanitation program with emphasis on non-chemical control methods, such as drainage maintenance, in lieu of dispersement of chemical insecticides which stress the environment. Some 220 miles of surface water-drainage ditches were maintained to eliminate mosquito breeding around employee housing and work areas. While the 1,290 acres of Canal dredge spoil lagoons offer potentially ideal breeding conditions, preventive actions were successful in curbing mosquito infestations.

About 3,000 acres of improved grounds were maintained in and around Commission townsites, Commission buildings, and work areas. Vegetation control for the maintenance of aids to navigation, survey markers, utility lines, Canal bank stability drainage systems, and the various dams on Gatun Lake was continued by Commission forces. Grass cutting along utility line right of way was accomplished by contract forces.

Efforts to control and eliminate migrating swarms of Africanized honeybees continued. Commission and U.S. military bee control teams handled 741 cases in fiscal year 1984, as compared to 670 cases the previous year. Twelve transiting vessels required boarding by Commission bee control teams to destroy Africanized bee swarms in fiscal year 1984, while seven ships requested bee control service during fiscal year 1983. These control efforts are important in preventing the accidental ship transport of Africanized bees to noninfested world ports. Several incidents of severe stinging attacks have been reported from Panama during the past fiscal year; however, none have occurred within populated areas where Commission bee control efforts have been directed.

The Commission's sanitary landfill refuse disposal facilities handled 75,000 tons of refuse. Modest improvements begun last year were completed at the landfills, including employee rest rooms, telephone service, and entrance security fence.

TRANSPORTATION FACILITIES

The Motor Transportation Division operated and maintained a consolidated motor pool of 802 vehicles designed to meet the vehicular transportation requirements of the Commission. The vehicle fleet in fiscal year 1984 included 547 trucks of various types, 199 passenger-carrying vehicles, and 56 special-purpose vehicles. Vehicle mileage decreased slightly from 7,501,000 miles in fiscal year 1983 to 7,170,000 miles in fiscal year 1984. Fully equipped shops, including a tire retreading plant and heavy duty repair shops, provide facilities for overhauls, maintenance and repairs to the Motor Transportation Division fleet and equipment of other Commission units. In addition, some services were contracted out where they were available in required quantity and quality in Panama. The vehicle inspection facilities located within the Motor Transportation Division areas were used by the Government of Panama to conduct inspections of privately-owned vehicles and by the Motor Transportation Division to perform Commission vehicle inspections.

PUBLIC UTILITIES AND ENERGY

Panama Canal Commission facilities include electric power generation and distribution systems, communication systems, water purification and distribution systems, and a central chilled water air conditioning system for certain public buildings on the Pacific side.

Total Canal area energy demand during fiscal year 1984 was 533 gigawatt hours, a 5.9 percent decrease from the 567 gigawatt hours used last year. The peak hourly demand of 84 megawatts reached on February 27, 1984, was 7.7 percent below the peak of 91 megawatts in the prior year. Agency-directed energy consumption in fiscal year 1984 for electrical power and fuel, calculated together in Btu's, was reduced a total of 25.6 percent in relation to the fiscal year 1975 baseline established by the Federal Energy Management Program. Electrical power consumption by the Commission, of 68.8 gigawatt hours, was 7.4 percent below the usage levels recorded for comparable operations in fiscal year 1975; fuel consumption, excluding fuel for power generation, of 4.6 million gallons, was 40.4 percent below the corresponding 1975 fiscal year baselines.

The water treatment and distribution systems operated by the Commission provide potable water for the Canal area and areas of the Republic of Panama. The Pacific side system serves the Canal area, Panama City, and suburban areas; and the separate Atlantic side system serves the Canal area, the city of Colon, and suburban areas. During fiscal year 1984, the two systems supplied 3,062 million cubic feet of potable water to consumers, a decrease of about 0.5 percent from the previous year. However, Panama City and suburbs consumption increased about 1.0 percent to an average of 34.2 million gallons per day.

FIRE PROTECTION

The Panama Canal Commission Fire Division, in coordination with the Panama Fire Corps, is responsible for fire protection, fire fighting, and rescue operations in Canal operating areas, defense sites, civilian and military areas of coordination, and shipboard fire fighting on all vessels in Canal Area waters.

During fiscal year 1984, there were 563 fires (excluding ships), causing a loss of \$384,952 as compared to 971 fires during fiscal year 1983 which resulted in a loss of \$233,262. Although there were 17 fires aboard ships with losses amounting to \$243,112 during this fiscal year compared to 14 ship fires and losses of \$17,670 the year before, this increase in ship fires does not constitute a threat to the Canal. The Commission continued to upgrade its fire fighting capability, and during fiscal year 1984 we initiated a 3-year program to upgrade our fire fighting facilities at the locks. A variety of hazardous material type emergencies totaled 26.

CANAL PROTECTION

The Canal Protection Division provides a minimum essential level of physical security for important installations and facilities of the Panama Canal Commission through the prevention and detection of theft, pilferage, and sabotage; and the prevention of unauthorized use of Government property, equipment and facilities. Division personnel are also responsible for the Commission physical environmental protection function. Physical security improvements planned the previous year were begun. Approximately one third of the funds have been spent and the remainder of the work is expected to be accomplished during fiscal year 1985.

HEALTH AND SAFETY

The Occupational Health Division and the Safety Division are components of the Office of Personnel Administration. The Personnel Director is the Designated Agency Safety and Health Official.

During fiscal year 1984, the Commission experienced 675 performance of duty accidents in which the employees required medical attention beyond first aid, as compared to 761 such accidents in fiscal year 1983. That experience equates to an incident rate of 7.7 per 200,000 man-hours worked in fiscal year 1984 versus an incident rate of 9.5 in fiscal year 1983. Despite intensified safety awareness training and increased emphasis on the safety role and responsibilities of managers and supervisors, there were ten job-related fatalities recorded in fiscal year 1984. Eight of the ten fatalities occurred in two separate accidents at the end of the fiscal year.

An agency level Occupational Health and Safety Committee, comprised of five labor and five management representatives, was established in fiscal year 1984. This committee, which has been certified by the Department of Labor, serves to consult and advise on the operations of the Commission's occupational safety and health program and to monitor its performance.

Chapter IV

ADMINISTRATION AND STAFF

PERSONNEL FORCE EMPLOYED AND RATES OF PAY

At the end of fiscal year 1984, the total Isthmian force of the Commission was 8,090 compared to 8,344 employees in fiscal year 1983. Of the total in 1984, 7,475 were permanent and 615 temporary. In addition, there was a U.S. Coast Guard officer assigned to the Commission on the Isthmus. Fourteen persons, all U.S. citizens, were employed by the Commission in New Orleans and Washington, D.C.

Approximately 78 percent of the total Isthmian force was comprised of Panamanians; 3 percent of third country nationals; and the remaining 19 percent of U.S. citizens. Rates of pay were based on a U.S. Wage Base for positions normally filled by recruitment from the United States, on a Canal Area Wage Base for occupational categories normally filled by recruitment on the Isthmus prior to the treaty effective date of October 1, 1979, and on a New Wage System for employees hired locally on or after that date. Effective January 1984, the first step of a plan to phase out the New Wage System eliminated one fifth of the difference between the New Wage System and pretreaty wage schedules. Subsequent steps, in October 1984 and 1985, will eliminate the remaining difference. The following table shows the Commission civilian permanent Isthmian work force by citizenship and wage base.

<i>Fiscal Year 1984</i>	<i>U.S.</i>	<i>Non-U.S.</i>	<i>Total</i>
Canal Area Wage Base	92	3,079	3,171
U.S. Wage Base	1,324	1,956	3,280
New Wage Base	68	956	1,024
Total	<u>1,484</u>	<u>5,991</u>	<u>7,475</u>

The total Commission payroll was \$178.3 million in fiscal year 1984 compared to \$170.4 million in fiscal year 1983. Of the total Commission fiscal year 1984 payroll, \$109.5 million was paid to non-U.S. citizen employees and \$68.8 million to U.S. citizen employees.

EQUAL EMPLOYMENT OPPORTUNITY PROGRAM

Between the fiscal years 1983 and 1984, there was a significant decrease in the number of EEO complaints formally filed with the agency. A breakdown of formal EEO complaints filed on the basis of citizenship groupings between the two fiscal years follows:

	Fiscal year	
	1984	1983
United States	4	4
Non-United States	4	10
Total	8	14

The decline in the number of formal EEO complaints filed reflects that employees are beginning to utilize the negotiated grievance procedure (NGP) for filing their complaints under collective bargaining agreements. While the Office of Equal Opportunity is not directly involved in the NGP process, pursuant to the Administrator's decision, the Office of EO does make inquiries for management into all grievances which include an EEO issue. In addition to the eight cases investigated in FY 1984, two such in-depth inquiries were also conducted by the office.

Panamanians continued to increase as a percentage of the total permanent work force as follows:

	Fiscal year 1984		Fiscal year 1983	
United States	1,499	(20.0%)	1,646	(21.0%)
Panama	5,790	(77.3%)	5,966	(76.0%)
Third Country Nationals	201	(2.7%)	230	(3.0%)

There was little variation in the total permanent work force composition on the basis of sex:

	Fiscal year 1984		Fiscal year 1983	
Female	774	(10.3%)	791	(10.1%)
Male	6,716	(89.7%)	7,051	(89.9%)

Employment statistics for fiscal year 1984 reflect continued compliance with treaty mandates. During the five-year period since October 1, 1979, the Commission's total permanent work force decreased by six percent, while Panamanians on the rolls in permanent positions increased by approximately five percent as of September 30, 1984.

PUBLIC AFFAIRS

During fiscal year 1984, the Office of Public Affairs provided media coverage of a number of significant events at the Panama Canal. The commemoration of the seventieth (70th) anniversary of the Canal was accompanied by presentations of mementos and resulted in improved customer relations. Also noteworthy were: participation in marketing activities, including international maritime expositions; coordination of the visits of many distinguished visitors and guests to the Canal; and providing assistance to news media representatives from all

over the world during the events surrounding the election of a new Panamanian President and the end of the five-year treaty transition period.

The Graphic Branch provided support to the foregoing activities, as well as producing three new films, among which was a new pilot training film entitled "Filling and Spilling."

During the year, the Guide Service handled a total of 251,888 visitors at Miraflores and Gatun Locks and conducted 818 tours of the locks facilities. Among those visitors were United Nations Secretary General, Javier Perez de Cuellar, and numerous representatives of the international press, television and the motion picture industry.

OMBUDSMAN

The Office of the Ombudsman, established by the Implementing Legislation for the Panama Canal Treaty of 1977, continued to respond to employee and dependent complaints, grievances, and requests for information. Generally, client traffic required the Ombudsman to investigate administrative problems, inefficiencies, omissions, and policy conflicts caused within the Panama Canal Commission and other U.S. Government agencies on the Isthmus as a result of the treaty. However, the widest latitude possible was applied to problems affecting employee morale and quality of life.

During fiscal year 1984, over 2,670 requests for information and/or assistance were recorded by the Ombudsman. As in the previous year, the majority of the Ombudsman's work concerned Commission employees and those employees who were transferred with their functions from the Panama Canal Company/ Canal Zone Government to the Department of Defense. Regardless of the everchanging variety and scope of complaints and questions raised, the root cause remained the same, i.e., treaty stress and strain in the work place and in personal life.

INDUSTRIAL RELATIONS

After several months of negotiation, the fifth and last original contract to be negotiated for a bargaining unit under the Federal Service Labor-Management Relations Statute (Title VII of the Civil Service Reform Act of 1978) was initialled by the Commission and the Maritime/Metal Trades Council for the 166-member professional employee unit. The contract became effective on April 11, 1984. Implementation of this contract extended the number of Commission employees covered by collective bargaining agreements to 7,913, or 97.6 percent of the work force.

Also, the first contract to be negotiated under Title VII in the Commission, the Panama Canal Pilot Unit contract which became effective on January 2, 1981, was renegotiated during the period February 8 through April 9, 1984. The tentative agreement reached on April 9 failed to be ratified by a majority vote of the union membership. After a further attempt

at mediation failed, the Federal Service Impasses Panel ordered one of its members to resolve the dispute by use of mediation-arbitration. The impasse procedure is scheduled to take place during the first few weeks of fiscal year 1985.

Chapter V

FINANCIAL REPORT

FINANCIAL STATEMENTS

FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 1984

The financial statements of the Panama Canal Commission, appearing as Tables 1 through 6, with accompanying notes, present the financial position of the Commission at September 30, 1984, and the results of its operations for the fiscal year then ended.

The accounts and statements of the Panama Canal Commission have been examined by the Office of General Auditor of the Commission and are subject to examination by the United States General Accounting Office. Detailed audit reports of the United States General Accounting Office are directed to the Congress and are presented as Congressional documents.

Summary information concerning operating results and capital expenditures follows:

RESULTS OF OPERATIONS

Net revenue from operations amounted to \$6.8 million. Pursuant to the provisions of paragraph 4(c) of Article XIII of the Panama Canal Treaty of 1977 subject to the limitations set forth in chapter 3, subchapter V, section 1341(b)(2) of the Panama Canal Act of 1979 (Public Law No. 96-70), the net revenue was reduced by the fiscal year 1983 unrecovered costs of \$4.1 million, leaving a balance of \$2.7 million payable to the Government of Panama.

CAPITAL EXPENDITURES

Accrued capital expenditures for fiscal year 1984 amounted to \$22.5 million. The principal expenditures were \$4.6 million for construction of tug/lock miter gate repair facilities, \$1.4 million for improvements to electrical power and communication systems, \$1.1 million for construction of the Tie-up Station, \$1.3 million for navigation improvements, \$1.1 million for replacement of launches and launch engines, \$1.0 million for replacement of turntables (locks), and \$1.0 million for replacement of tugboats.

Table 1.—Balance Sheet

Assets	1984	1983
PROPERTY, PLANT AND EQUIPMENT:		
At cost (Note 1c)	\$888,551,801	\$869,818,221
Less accumulated depreciation and valuation allowances (Notes 1e, 2 and 3)	<u>420,152,474</u>	<u>402,676,579</u>
	<u>468,399,327</u>	<u>467,141,642</u>
CURRENT ASSETS:		
Cash and fund balances (Notes 4 and 5):		
Deposit funds and undeposited receipts:		
Postal fund	151,542	158,657
Trust fund	521,421	1,132,860
Cash receipts for deposit into U.S. Treasury ..	<u>917,191</u>	<u>282,793</u>
	<u>1,590,154</u>	<u>1,574,310</u>
Unexpended appropriated funds:		
Operating funds	46,185,064	45,222,217
Capital funds	28,986,025	28,517,883
Emergency fund	<u>10,000,000</u>	<u>10,000,000</u>
	<u>85,171,089</u>	<u>83,740,100</u>
	<u>86,761,243</u>	<u>85,314,410</u>
Accounts receivable	13,844,708	11,043,545
Other receivables (Note 7)	<u>826,867</u>	<u>826,867</u>
	<u>14,671,575</u>	<u>11,870,412</u>
Inventories, less allowance for obsolete and excess stock of \$400,000 and \$750,154, respectively (Notes 1g and 6d)	<u>40,718,200</u>	<u>42,010,283</u>
Other current assets	<u>262,627</u>	<u>354,383</u>
	<u>142,413,645</u>	<u>139,549,488</u>
OTHER ASSETS:		
Deferred charges:		
Cost of early retirement benefits (Note 1h)	293,400,000	312,960,000
Retirement benefits to certain former employees of predecessor agencies (Note 1h)	9,596,000	10,776,000
Other	<u>408,213</u>	<u>612,319</u>
	<u>303,404,213</u>	<u>324,348,319</u>
Unrecovered costs due from subsequent revenues (Notes 1b and 8)	<u>.....</u>	<u>4,132,804</u>
	<u>303,404,213</u>	<u>328,481,123</u>
TOTAL ASSETS	<u>\$914,217,185</u>	<u>\$935,172,253</u>

The accompanying notes are an integral part of this statement.

September 30, 1983 and 1983

Liabilities	1984	1983
INVESTMENT OF THE UNITED STATES GOVERNMENT:		
Invested capital:		
Interest-bearing (10.208% and 9.885%, respectively) (Note 9)	\$84,014,932	\$108,905,590
Non-interest-bearing	277,910,116	268,748,245
	<u>361,925,048</u>	<u>377,653,835</u>
Current budgetary accounts (Note 4):		
Obligated operating funds	46,185,064	45,222,217
Obligated capital funds	19,792,831	18,031,685
Unobligated capital funds	9,193,194	10,486,198
Unobligated emergency fund	10,000,000	10,000,000
	<u>85,171,089</u>	<u>83,740,100</u>
	<u>447,096,137</u>	<u>461,393,935</u>
CURRENT LIABILITIES:		
Accounts payable:		
U.S. Government agencies	4,861,685	3,914,323
Government of Panama	6,630,604	6,205,923
Other	8,067,022	4,708,282
	<u>19,559,311</u>	<u>14,828,528</u>
Accrued liabilities:		
Employees' leave	39,643,978	38,075,806
Salaries and wages	4,513,849	6,124,362
Cost of early retirement benefits (Note 1h)	19,560,000	19,560,000
Retirement benefits to certain former employees of predecessor agencies (Note 1h)	1,234,000	1,364,000
Employees' repatriation	1,270,000	1,457,000
Ship accident claims (Notes 7 and 10)	8,569,562	9,818,560
Net revenue payable to Government of Panama (Note 11)	2,704,695	.....
Other	5,010,926	2,432,361
	<u>82,507,010</u>	<u>78,832,089</u>
Other current liabilities:		
Unfunded ship accident claims (Notes 7 and 10) ..	19,782,519	17,890,038
Advances for capital-unexpended (Notes 1d and 12)	14,078,394	13,231,035
Other	483,062	1,114,088
	<u>34,343,975</u>	<u>32,235,161</u>
	<u>136,410,296</u>	<u>125,895,778</u>
DEFERRED CREDIT:		
Advances for capital being amortized (Notes 1d, 6a and 12)	17,501,785	14,437,009
LONG-TERM LIABILITIES AND RESERVES:		
Cost of early retirement benefits (Note 1h)	273,840,000	293,400,000
Retirement benefits to certain former employees of predecessor agencies (Note 1h)	8,362,000	9,412,000
Employees' repatriation	10,728,400	10,200,000
Lock overhauls (Note 1i)	5,395,232	7,607,574
Casualty losses (Notes 1j and 13)	12,383,335	12,825,957
Floating equipment repair (Note 6c)	2,500,000	.....
	<u>313,208,967</u>	<u>333,445,531</u>
TOTAL LIABILITIES	<u>\$914,217,185</u>	<u>\$935,172,253</u>

The accompanying notes are an integral part of this statement.

**Table 2.—Statement of Operations and Non-Interest-Bearing Investment
Fiscal Years Ended September 30, 1984 and 1983**

	<i>1984</i>	<i>1983</i>
OPERATING REVENUES:		
Tolls (Note 1b)	\$289,155,035	\$287,791,023
Advances for capital (Note 1d)	<u> </u>	<u>(4,078,000)</u>
Net tolls revenue	<u>289,155,035</u>	<u>283,713,023</u>
Other	120,114,444	111,417,549
Advances for capital (Note 12)	<u>(4,853,615)</u>	<u>(1,173,549)</u>
Net other revenue	<u>115,260,829</u>	<u>110,244,000</u>
Total operating revenue	<u>404,415,864</u>	<u>393,957,023</u>
OPERATING EXPENSES:		
Payments to the Government of Panama (Note 11):		
Public services	10,000,000	10,000,000
Fixed annuity	10,000,000	10,000,000
Tonnage	<u>49,143,817</u>	<u>51,190,136</u>
	<u>69,143,817</u>	<u>71,190,136</u>
Maintenance of channels and harbors	39,633,790	35,970,930
Navigation service and control	71,396,827	72,452,357
Locks operation	46,516,500	45,641,090
General repair, storehouse, engineering and maintenance services	10,538,895	9,625,198
Transportation and utilities	35,607,259	42,104,531
Housing operations	7,009,386	8,871,031
General and administrative	70,460,073	69,126,899
Interest on interest-bearing investment (Note 9)	9,796,269	9,943,192
Other	<u>37,475,549</u>	<u>33,164,463</u>
Total operating expenses	<u>397,578,365</u>	<u>398,089,827</u>
NET OPERATING REVENUE (LOSS) (Notes 1b, 8 and 11) ...	6,837,499	(4,132,804)
INVESTED CAPITAL—NON-INTEREST-BEARING:		
Unrecovered costs (recovered) deferred (Notes 1b and 8)	(4,132,804)	4,132,804
Net revenue payable to Government of Panama (Note 11)	(2,704,695)	.....
Investment at beginning of fiscal year	268,748,245	258,511,310
Miscellaneous receipts deposited into the U.S. Treasury	282,793	576,536
Due U.S. Treasury for undeposited receipts	(917,191)	(282,793)
Interest on interest-bearing investment (Note 9)	<u>9,796,269</u>	<u>9,943,192</u>
INVESTED CAPITAL—NON-INTEREST-BEARING AT END OF FISCAL YEAR	<u>\$277,910,116</u>	<u>\$268,748,245</u>

The accompanying notes are an integral part of this statement.

**Table 3A.—Statement of Changes in the Investment of the United States Government
Fiscal Year Ended September 30, 1984**

	<i>Invested Capital</i>		<i>Emergency Fund</i>	<i>Operating Funds</i>	<i>Capital Funds</i>	<i>Total</i>
	<i>Interest-Bearing</i>	<i>Non-Interest-Bearing</i>				
INVESTMENT AT OCTOBER 1, 1983.....	\$108,905,590	\$268,748,245	\$10,000,000	\$45,222,217	\$28,517,883	\$461,393,935
Appropriation by the Congress for fiscal year 1984.....	.....	.....	.....	391,912,000	21,813,000	413,725,000
	<u>108,905,590</u>	<u>268,748,245</u>	<u>10,000,000</u>	<u>437,134,217</u>	<u>50,330,883</u>	<u>875,118,935</u>
INCREASES IN INVESTMENT:						
Prior year receipts deposited into the U.S. Treasury.....	.....	282,793	.....	.....	.....	282,793
Expenditures from capital appropriations.....	21,344,858	.....	.....	.....	(21,344,858)	.....
Expenditures from operating appropriations.....	360,006,716	.....	.....	(360,006,716)	.....	.....
Interest on investment.....	.....	9,796,269	.....	.....	.....	9,796,269
Net revenue (Notes 1b and 8).....	.....	<u>2,704,695</u>	.....	.....	.....	<u>2,704,695</u>
	<u>381,351,574</u>	<u>12,783,757</u>	.....	<u>(360,006,716)</u>	<u>(21,344,858)</u>	<u>12,783,757</u>
DECREASES IN INVESTMENT:						
Funds to be covered into the U.S. Treasury.....	.....	.....	.....	.....	.....	30,942,437
Receipts deposited into the U.S. Treasury.....	405,954,027	.....	.....	30,942,437	.....	405,954,027
Due U.S. Treasury for undeposited receipts.....	.....	917,191	.....	.....	.....	917,191
Property transferred to the Government of Panama.....	116,358	.....	.....	.....	.....	116,358
Property transferred to other U.S. Government agencies.....	171,847	.....	.....	.....	.....	171,847
Net revenue contingently payable to Government of Panama (Notes 1b and 8).....	.....	<u>2,704,695</u>	.....	.....	.....	<u>2,704,695</u>
	<u>406,242,232</u>	<u>3,621,886</u>	.....	<u>30,942,437</u>	.....	<u>440,806,555</u>
INVESTMENT AT SEPTEMBER 30, 1984.....	<u>\$84,014,932</u>	<u>\$277,910,116</u>	<u>\$10,000,000</u>	<u>\$46,185,064</u>	<u>\$28,986,025</u>	<u>\$847,096,137</u>
	(Note 9)					

The accompanying notes are an integral part of this statement.

**Table 3B.—Statement of Changes in the Investment of the United States Government
Fiscal Year Ended September 30, 1983**

	<i>Invested Capital</i>			<i>Emergency Fund</i>	<i>Operating Funds</i>	<i>Capital Funds</i>	<i>Total</i>
	<i>Interest-Bearing</i>	<i>Non-Interest-Bearing</i>					
INVESTMENT AT OCTOBER 1, 1982.....	\$89,763,345	\$258,511,310	\$10,000,000	\$74,440,013	\$21,424,115	\$454,138,783	
Appropriation by the Congress for fiscal year 1983.....	89,763,345	258,511,310	10,000,000	405,378,634	29,024,000	434,402,634	
				479,818,647	50,448,115	888,541,417	
INCREASES IN INVESTMENT:							
Prior year receipts deposited into the U.S. Treasury.....		576,536				576,536	
Expenditures from capital appropriations.....	21,930,232				(21,930,232)		
Expenditures from operating appropriations.....	395,875,547			(395,875,547)			
Funds covered into U.S. Treasury.....	(28,200,421)					(28,200,421)	
Repayment to the U.S. Treasury of FY 1980 appropriation lapsed.....	28,200,421			(28,200,421)			
Interest on interest-bearing investment.....		9,943,192				9,943,192	
Property transferred from other U.S. Government agencies.....	3,356					3,356	
Unrecovered costs deferred (Notes 1b and 8).....		4,132,804				4,132,804	
	417,809,135	14,652,532		(424,075,968)	(21,930,232)	(13,544,533)	
DECREASES IN INVESTMENT:							
Funds to be covered into the U.S. Treasury.....							10,520,462
Receipts deposited into the U.S. Treasury.....	398,461,068			10,520,462		398,461,068	
Due U.S. Treasury for undeposited receipts.....		282,793				282,793	
Property transferred to the Government of Panama.....	141,303					141,303	
Property transferred to other U.S. Government agencies.....	64,519					64,519	
Net loss (Notes 1b, 8 and 11).....		4,132,804				4,132,804	
	398,666,890	4,415,597		10,520,462		413,602,949	
INVESTMENT AT SEPTEMBER 30, 1983.....	\$108,905,590	\$268,748,245	\$10,000,000	\$45,222,217	\$28,517,883	\$461,393,935	

(Note 9)

The accompanying notes are an integral part of this statement.

Table 4.—Statement of Changes in Financial Position
Fiscal Years Ended September 30, 1984 and 1983

SOURCE OF FUNDS:	1984	1983
From Operations:		
Revenue	\$404,415,864	\$393,957,023
Less operating expenses:		
Interest on interest-bearing investment	9,796,269	9,943,192
Payments to the Government of Panama (Note 11).....	69,143,817	71,190,136
Other expenses.....	318,638,279	316,956,499
Total operating expenses	397,578,365	398,089,827
Net operating revenue (loss) (Notes 1b, 8 and 11)	6,837,499	(4,132,804)
Unrecovered costs for fiscal year 1983 (recovered) deferred (Notes 1b and 8)	(4,132,804)	.....
Net revenue payable to Government of Panama (Notes 1b, 8 and 11)	(2,704,695)	.....
Unrecovered costs for fiscal year 1983 deferred (Notes 1b, 8 and 11) .....	.....	4,132,804
Add transactions not requiring outlay of funds:		
Depreciation (Note 1e)	19,586,529	18,514,996
Provision for lock overhauls (Note 1i).....	5,071,000	4,354,000
Provision for casualty losses (Note 1j).....	7,400,000	3,117,088
Provision for floating equipment repair (Note 6c).....	2,500,000	.....
Other	5,665,966	1,970,819
	<u>40,223,495</u>	<u>27,956,903</u>
Change in investment of the U.S. Government:		
Interest on interest-bearing investment	9,796,269	9,943,192
Receipts deposited into U.S. Treasury	(405,954,027)	(398,461,068)
Disbursements from appropriated funds	381,351,575	446,006,200
Repayment to the U.S. Treasury of the fiscal year 1980 appropriation lapsed .....	.....	(28,200,421)
Net property transfers	(288,206)	(202,466)
Other	(634,399)	293,744
	<u>(15,728,788)</u>	<u>29,379,181</u>
Amortization of advances for capital	941,478	919,711
Advances for capital being amortized (Notes 1d, 6a and 12).....	3,064,777	2,480,771
Total source of funds	<u>28,500,962</u>	<u>60,736,566</u>
APPLICATION OF FUNDS:		
Lock overhauls expenditures	7,283,342	5,040,623
Casualty losses	7,842,622	4,214,134
Accrued capital expenditures	22,456,349	21,704,598
Total application of funds	<u>37,582,313</u>	<u>30,959,355</u>
INCREASE (DECREASE) IN WORKING CAPITAL	<u>\$ (9,081,351)</u>	<u>\$29,777,211</u>
ANALYSIS OF CHANGES IN WORKING CAPITAL:		
Increase (decrease) in current assets:		
Cash.....	\$ 15,843	\$ (185,931)
Receivables	2,801,163	1,055,670
Inventories	(1,292,084)	7,429,667
Other	(91,755)	150,646
	<u>1,433,167</u>	<u>8,450,052</u>
Decrease (increase) in current liabilities:		
Accounts payable	(4,730,783)	21,268,127
Accrued liabilities	(3,674,921)	(555,681)
Other	(2,108,814)	614,713
	<u>(10,514,518)</u>	<u>21,327,159</u>
INCREASE (DECREASE) IN WORKING CAPITAL	<u>\$ (9,081,351)</u>	<u>\$ 29,777,211</u>

The accompanying notes are an integral part of this statement.

**Table 5.—Statement of Status of Appropriations
Fiscal Years Ended September 30, 1984 and 1983**

	1984	1983
SOURCE OF APPROPRIATIONS:		
Operating funds:		
Current year operating appropriation	\$391,912,000	\$405,378,634
Obligated operating funds brought forward:		
Fiscal year 1980	2,543,398	23,684,912
Fiscal year 1981	3,424,423	5,623,556
Fiscal year 1982	4,717,168	45,131,545
Fiscal year 1983	34,537,228	.....
	<u>45,222,217</u>	<u>74,440,013</u>
	<u>437,134,217</u>	<u>479,818,647</u>
Capital funds:		
Current year capital appropriation (no year)	<u>21,813,000</u>	<u>29,024,000</u>
Obligated capital funds brought forward:		
Fiscal year 1980	273,632	358,549
Fiscal years 1981 through 1982 .....	.....	15,347,121
Fiscal years 1981 through 1983	<u>17,758,053</u>	.....
	<u>18,031,685</u>	<u>15,705,670</u>
Unobligated capital funds (no year) brought forward:		
Fiscal year 1980	201,847	599,957
Fiscal years 1981 through 1982 .....	.....	5,118,488
Fiscal years 1981 through 1983	<u>10,284,351</u>	.....
	<u>10,486,198</u>	<u>5,718,445</u>
	<u>50,330,883</u>	<u>50,448,115</u>
Emergency fund (no year)	<u>10,000,000</u>	<u>10,000,000</u>
 TOTAL SOURCE OF APPROPRIATIONS	 <u>\$497,465,100</u>	 <u>\$540,266,762</u>

The accompanying notes are an integral part of this statement.

**Table 5.—Statement of Status of Appropriations
Fiscal Years Ended September 30, 1984 and 1983**

	1984	1983
APPLICATION OF APPROPRIATIONS:		
Operating funds:		
Expenditures from operating appropriations:		
Repayment to the U.S. Treasury of the fiscal year 1980 appropriation lapsed	\$.....	\$28,200,421
Fiscal year 1980	886,097	21,121,981
Fiscal year 1981	1,167,815	2,830,821
Fiscal year 1982	2,326,651	38,274,112
Fiscal year 1983	29,591,407	333,648,633
Fiscal year 1984	<u>326,034,746</u>	<u>.....</u>
	<u>360,006,716</u>	<u>424,075,968</u>
Obligated operating funds:		
Fiscal year 1980	1,692,534	2,543,398
Fiscal year 1981	3,558,134	3,424,423
Fiscal year 1982	2,854,042	4,717,168
Fiscal year 1983	3,887,554	34,537,228
Fiscal year 1984	<u>34,192,800</u>	<u>.....</u>
	<u>46,185,064</u>	<u>45,222,217</u>
Unobligated operating funds lapsed	<u>30,942,437</u>	<u>10,520,462</u>
	<u>437,134,217</u>	<u>479,818,647</u>
Capital funds:		
Expenditures from capital appropriations:		
Fiscal year 1980	229,106	483,026
Fiscal years 1981 through 1983 .....	.....	21,447,206
Fiscal years 1981 through 1984	<u>21,115,752</u>	<u>.....</u>
	<u>21,344,858</u>	<u>21,930,232</u>
Obligated capital funds:		
Fiscal year 1980	159,269	273,632
Fiscal years 1981 through 1983 .....	.....	17,758,053
Fiscal years 1981 through 1984	<u>19,633,562</u>	<u>.....</u>
	<u>19,792,831</u>	<u>18,031,685</u>
Unobligated capital funds (no year):		
Fiscal year 1980	87,103	201,848
Fiscal years 1981 through 1983 .....	.....	10,284,350
Fiscal years 1981 through 1984	<u>9,106,091</u>	<u>.....</u>
	<u>9,193,194</u>	<u>10,486,198</u>
	<u>50,330,883</u>	<u>50,448,115</u>
Unobligated emergency fund (no year)	<u>10,000,000</u>	<u>10,000,000</u>
TOTAL APPLICATION OF APPROPRIATIONS	<u>\$497,465,100</u>	<u>\$540,266,762</u>

The accompanying notes are an integral part of this statement.

Table 6.—Statement of Property, Plant and Equipment
September 30, 1984 and 1983

	1984	1983
	Estimated service life	Depreciation and valuation allowances
	40 years	Cost
Titles and treaty rights	40 years	\$14,728,889
Interest during construction .....	.....	\$4,142,501
Canal excavation, fills and embankments	15-100 years	50,892,311
Canal structures and equipment	4-100 years	97,504,007
Supporting and general facilities	4-100 years	111,597,988
Minor items of plant and equipment .....	.....	223,188,786
Facilities held for future use	10-100 years	159,531,771
Plant additions in progress .....	.....	102,770,199
Suspended construction projects .....	.....	10,339,272
		2,760,398
		3,166,947
		20,546,230
		40,145,798
TOTAL		\$888,551,801
		\$420,152,474
		\$869,818,221
		\$402,676,579

The accompanying notes are an integral part of this statement.

NOTES TO FINANCIAL STATEMENTS

1. Summary of Significant Accounting Policies.

The Comptroller General of the United States approved the Accounting Principles and Standards Statement of the Panama Canal Commission in his letter dated September 14, 1982. A summary of significant accounting policies follows:

a. *Accounting and reporting.* As required by section 1311(a) of the Panama Canal Act of 1979, hereinafter referred to as the Act, the accounts of the Commission are maintained pursuant to the Accounting and Auditing Act of 1950. This requires that the principles, standards and related requirements be met, as prescribed by the Comptroller General of the United States, after consulting with the Secretary of the Treasury and the Director of the Office of Management and Budget concerning their accounting, financial reporting and budgetary needs. The Accounting and Auditing Act of 1950 also requires that the accounts be maintained on an accrual basis.

b. *Cost recovery.* As required by section 1341(e)(1) of the Act, the application of generally accepted accounting principles to the Panama Canal Commission, a United States Government agency comparable to a rate-regulated public utility, determines the manner in which costs are recognized. The basis for tolls rates is prescribed in section 1602(b) of the Act. This section of the Act, known as the "statutory tolls formula," provides that:

"Tolls shall be prescribed at rates calculated to produce revenues to cover as nearly as practicable all costs of maintaining and operating the Panama Canal, together with the facilities and appurtenances related thereto, including unrecovered costs incurred on or after the effective date of this Act, interest, depreciation, payments to the Republic of Panama pursuant to paragraph 5 of Article III and paragraph 4(a) and (b) of Article XIII of the Panama Canal Treaty of 1977, and capital for plant replacement, expansion, and improvements. Tolls shall not be prescribed at rates calculated to produce revenues sufficient to cover payments to the Republic of Panama pursuant to paragraph 4(c) of Article XIII of the Panama Canal Treaty of 1977."

Under this statutory tolls formula, any unrecovered costs are to be recovered from subsequent revenues. The amount for recovery from subsequent revenues is transferred from Invested Capital to an account within the Other Assets classification. Unrecovered costs are charged back to Invested Capital to the extent subsequent annual revenues exceed annual costs.

c. *Property, plant and equipment.* Property, plant and equipment are recorded at cost, or if acquired from another United States Government agency, at the value determined by the Director of the Office of Management

and Budget. Administrative and other related general expenses are recovered currently and therefore not capitalized. The cost of minor items of property, plant and equipment is charged to expense as incurred.

d. *Advances for capital.* A portion of tolls in excess of depreciation recoveries may be programmed annually by the Board of Directors for plant replacement, expansion, or improvements. Such funds are considered capital advances from Canal users. Upon utilization, these advances are amortized through an offset to depreciation expense in an amount calculated to approximate the depreciation on assets acquired with such advances.

e. *Depreciation.* Property, plant and equipment are depreciated over their estimated service lives at rates computed using a straight-line method with additional annual depreciation, identified as composite, to provide for premature plant retirements.

The recurring costs of dredging the waterway are charged to expense. Non-recurring dredging costs for substantial improvements and betterments to the waterway are considered additions to plant and are capitalized and depreciated over their estimated service lives.

f. *Accounts receivable.* Uncollectible accounts receivable of the Panama Canal Commission are recognized as a reduction in revenue when written off. Any subsequent collections of Commission accounts receivable previously written off are recorded as revenue.

g. *Inventories.* Operating materials and supplies are stated at average cost, plus cost of transportation to the ultimate destination on the Isthmus of Panama. An allowance has been established to reflect the estimated cost of obsolete and excess stock.

h. *Retirement benefits.* Employer payments to the contributory United States Civil Service Retirement System and to the Republic of Panama Social Security System are charged to expense. The Commission has no liability for future payments to employees under these systems.

Non-United States citizen employees who retired from predecessor agencies prior to October 5, 1958, are not covered by the United States Civil Service Retirement System but do receive benefits under a separate annuity plan. Payments made under this annuity plan are recorded as a current year expense. The liability of the Commission for future annuity payments to these former employees or their eligible widows is reflected in the balance sheet as "Retirement Benefits to Certain Former Employees of Predecessor Agencies" and an equal amount is recorded as a Deferred Charge.

As required by the Act, the Panama Canal Commission is liable for the increase in the unfunded liability of the United States Civil Service Retirement Fund which is attributable to benefits payable from that fund to, or on behalf of, employees and their survivors under the early retirement provisions of the Act. The annual installment to liquidate the increased liability is determined by the Office of Personnel Management.

i. *Reserve for lock overhauls.* A reserve is provided through an annual

charge to expense to cover the estimated cost of periodic lock overhauls.

j. *Reserve for casualty losses.* A reserve is provided through an annual charge to expense to cover the estimated cost of marine accidents and other casualty losses.

k. *Housing use rights.* No monetary value is assigned to the rights granted to the United States Government by the Republic of Panama to use Canal Area housing transferred to the Republic of Panama under the terms of the Panama Canal Treaty of 1977. The cost to manage, maintain and provide livability improvements to these quarters is charged to expense. Rental income is included in other revenues.

2. Plant Valuation Allowances.

At July 1, 1951, certain valuation allowances for property, plant and equipment transferred from the Panama Canal (agency) to the Panama Canal Company and the Canal Zone Government were established, to reduce to usable value the costs of the assets transferred. At October 1, 1979, such valuation allowances as were applicable to the assets transferred from the Panama Canal Company and the Canal Zone Government to the Panama Canal Commission were carried forward and are comprised of: (a) \$5.5 million at September 30, 1984, and \$5.6 million at September 30, 1983, to reduce to usable value the cost of property, plant and equipment transferred; (b) \$50.9 million at September 30, 1984, and 1983, to offset interest costs imputed for the original Canal construction period; and (c) \$42.8 million at September 30, 1984, and 1983, to offset the cost of defense facilities and suspended construction projects, the latter being principally the partial construction of a third set of locks abandoned in the early part of World War II.

Property, plant and equipment offset by valuation allowances, when fully or partially reactivated, are reinstated by a reduction in the valuation allowance and by an increase to the non-interest-bearing investment of the United States Government in proportion to the value to the Commission of the reactivated asset.

3. Depreciation as a Percentage of Average Cost of Plant.

The provision for depreciation, expressed as a percentage of average cost of depreciable plant exclusive of valuation allowances, was 2.63% for fiscal year 1984 and 2.55% for fiscal year 1983.

4. Cash and Fund Balances.

As of September 30, 1984, the cash and fund balances of \$86,761,243 are made up of \$83,845,968 on deposit in the United States Treasury, \$1,209,019 on deposit in commercial banks, and \$1,706,256 on hand. Of the total, \$85,171,089 is comprised of current budgetary accounts which include appropriated funds for operations, capital and the emergency fund.

As of September 30, 1983, the cash and fund balances of \$85,314,410 were

made up of \$80,721,975 on deposit in the United States Treasury, \$1,647,360 on deposit in commercial banks, and \$2,945,075 on hand. Of the total, \$83,740,100 was comprised of current budgetary accounts which included appropriated funds for operations, capital and the emergency fund.

The emergency fund represents the amount on deposit in the United States Treasury which is to be used ". . . to defray emergency expenditures and to insure the continuous efficient and safe operation of the Panama Canal when funds appropriated for the operation and maintenance of the Canal prove insufficient for such purposes"

The postal fund consists of outstanding money orders, postal savings and interest accrued thereon. This fund will remain available until liquidated. The trust fund primarily includes deposits made by customers for future tolls and other service payments.

5. Panama Canal Commission Fund.

The Panama Canal Commission Fund as established by the Panama Canal Act of 1979 (Public Law No. 96-70) is made up of receipts deposited in the United States Treasury less appropriation warrants issued during the fiscal year. The balance in this account, \$171.2 million as of September 30, 1984, and \$146.3 million as of September 30, 1983, is available for future appropriations.

Section 1302 of the Panama Canal Act of 1979 (Public Law No. 96-70) provides that all appropriations necessary to operate the Panama Canal shall be issued from the Panama Canal Commission Fund. The appropriations for fiscal year 1980 were issued to the Commission from the General Fund of the United States Treasury. The status of the amount still owed to the General Fund of the United States Treasury for fiscal year 1980 is as follows:

	<i>Millions of Dollars</i>	
Operating Appropriation.....	\$427.2	
Capital Appropriation	<u>36.6</u>	\$463.8
Repaid to General Fund (07/81)	(350.0)	
Repaid to General Fund (12/82)	<u>(28.2)</u>	<u>(378.2)</u>
Amount owed General Fund of U.S. Treasury as of September 30, 1984		<u>\$ 85.6</u>

6. Accounting Changes.

a. Amortization of Advances for Capital (see Note 1d) was implemented in fiscal year 1983 based on the following procedure: At the beginning of each fiscal year, an amount equivalent to any capital advance funds disbursed for plant replacement, expansion, or improvement during the previous fiscal year is reclassified and amortized over the average accounting life of assets acquired in the fiscal year in which the funds were expended. Beginning in fiscal year 1984 a new method was adopted for amortizing disbursements based on the flow of costs from construction work in progress. Disbursements are amortized in proportion

to depreciation costs arising from completed projects transferred from construction work in progress.

b. The intent of the lock overhauls reserve policy is to normalize costs directly related to the periodic repair and maintenance of the locks. Repair and maintenance costs of caissons, which are used exclusively for lock overhauls, have increased dramatically in recent years. To minimize significant fluctuations in results of operations, these costs are now charged to the reserve. In fiscal year 1983, \$754,136 for repair and maintenance of caissons was charged to the reserve for lock overhauls.

c. During fiscal year 1984, a reserve was established for floating equipment repair similar to the reserves now in existence for lock overhauls and marine accidents. A one-time charge to expense of \$2.5 million was made to establish the reserve. The annual accrual will be reviewed and adjusted as appropriate.

d. Effective with fiscal year 1984, there was a change in the method of applying the accounting policy for certain inventories. Inventories of manufactured materials and supplies and water system chemicals valued at \$1.3 million were written off by a charge to operations in fiscal year 1984.

7. Other Receivables.

Other receivables represent services provided in connection with ship accidents for which the vessel is considered to be responsible awaiting final settlement. This amount is also included in the computation of estimated liabilities established for ship accident claims.

8. Unrecovered Costs Due from Subsequent Revenues.

Pursuant to the provisions of section 1341(e) and section 1602(b) of the Panama Canal Act of 1979 (Public Law No. 96-70) the net loss of \$4.1 million from fiscal year 1983 operations was recovered from fiscal year 1984 operating revenue.

9. Interest-Bearing Investment of the United States Government.

The interest-bearing investment of the United States Government in the Panama Canal is determined based on section 1603(a) of the Panama Canal Act of 1979. The interest-bearing investment of the United States Government at September 30, 1984, and September 30, 1983, was determined as follows:

	<i>Millions of Dollars</i>
Investment at September 30, 1982	\$ 89.8
Fiscal year 1983 transactions:	
Disbursements	\$ 446.0
Receipts	(398.5)
Repayment to United States Treasury of FY 1980 lapsed funds	(28.2)
Net property transfers	(0.2)
Net change	19.1
Investment at September 30, 1983	108.9
Fiscal year 1984 transactions:	
Disbursements	381.4
Receipts	(406.0)
Net property transfers	(0.3)
Net change	(24.9)
Investment at September 30, 1984	<u>\$ 84.0</u>

10. Ship Accident Claims.

Liabilities arising from ship accident claims are divided into fund and non-fund categories. The fund category is made up of the following:

- a. Accidents which occurred prior to October 1, 1979.
- b. Accidents which occurred within the locks after September 30, 1979.
- c. Accidents which occurred outside the locks after September 30, 1979, for which the claim or estimated liability is \$120,000 or less per ship per accident.

Settlement of liabilities for ship accidents which occurred outside the locks where the claim exceeds \$120,000 requires specific Congressional approval. Until Congressional action is completed, liabilities for these accidents are booked as non-fund.

11. Payments to the Government of Panama.

Based on Article III and Article XIII of the Treaty, the Government of Panama has received payment for public services, fixed annuity and thirty cents per Panama Canal net ton. In addition to these payments, an amount of \$2.7 million is payable to the Government of Panama in accordance with paragraph 4(c) of Article XIII, which states that an annual amount of up to \$10 million will be paid out of operating revenues to the extent that such revenues exceed expenditures of the Commission. This amount is subject to the limitations set forth in section 1341(e) of the Panama Canal Act of 1979 (Public Law No. 96-70).

12. Advances for Capital—Transit Booking System Fees.

During fiscal year 1982, with approval of the Board of Directors, the Commission tested a system whereby shippers, for a fee, could make an advance reservation for vessel transit. The system was activated in fiscal year 1983 and generated funds of \$1.2 million and \$4.9 million in fiscal year 1984. Such funds are considered capital advances from Canal users. By direction of the Board of Directors, these fees are set aside for capital improvements.

13. Reserve for Casualty Losses.

The reserve for casualty losses at September 30, 1984, of \$12.4 million includes \$11.8 million for marine accidents and \$0.6 million for other casualty losses. The monthly accrual for the reserve for marine accidents in fiscal year 1984 was \$0.3 million per month for a total of \$4.0 million.

The reserve for casualty losses at September 30, 1983, of \$12.8 million included \$12.5 million for marine accidents and \$0.3 million for other casualty losses. As a result of a management analysis of accident frequency and severity, the regular monthly accrual of \$0.8 million was adjusted downward to recognize in the reserve account balance the decreased loss trend for larger vessels and the reduced potential loss exposure resulting from the significant drop in overall transit levels. Accordingly, the reserve for marine accidents was adjusted during fiscal year 1983 to maintain a balance of \$12.5 million in the account.

14. Contingent Liabilities and Commitments.

In addition to recorded liabilities, the estimated maximum contingent liability which could result from pending claims and lawsuits was \$3.4 million at September 30, 1984, and \$9.8 million at September 30, 1983. In the opinion of management and Commission counsel, these pending claims and lawsuits will be resolved with no material adverse effect on the financial condition of the agency.

Commitments under uncompleted construction contracts and unfilled purchase orders amounted to \$29.7 million at September 30, 1984, and \$30.8 million at September 30, 1983. Of this amount \$0.1 million in unfilled purchase orders were prepaid as of September 30, 1984, and \$0.2 million at September 30, 1983. In addition, the Panama Canal Commission is liable for an indeterminable amount with respect to death and disability payments under the Federal Employees' Compensation Act.

Cash and negotiable securities of a kind acceptable by the United States Government in the amount of \$6.3 million were held by United States depositories designated by the Panama Canal Commission at September 30, 1984, and \$6.5 million at September 30, 1983, to guarantee payment by third parties of their obligations.

The Panama Canal Treaty of 1977, Article XIII, paragraph 4(c), provides that an annual amount of up to \$10 million per year be paid to the Government of Panama out of operating revenues to the extent that such revenues exceed expenditures. Payment to the Government of Panama is subject to the limitations set forth in section 1341(e) of the Panama Canal Act of 1979 (Public Law No. 96-70). In the event operating revenues in any year do not produce a surplus sufficient to cover this payment, the unpaid balance shall be paid from operating surpluses in future years up to the amount available from these surpluses. As of September 30, 1984, the balance contingently payable to the Government of Panama amounts to \$44.2 million. As of September 30, 1983, the balance contingently payable to the Government of Panama amounted to \$36.9 million.

15. Treaty Impact.

On September 7, 1977, the United States of America and the Republic of Panama signed the Panama Canal Treaty of 1977. The Treaty provided for the establishment of the Panama Canal Commission on October 1, 1979, to assume certain operational responsibilities for the Canal until December 31, 1999. When the Treaty terminates on December 31, 1999, the Republic of Panama shall assume total responsibility for the management, operation, and maintenance of the Panama Canal, which shall be turned over in operating condition and free of liens and debts, except as the two Parties may otherwise agree. The effects of these long-range requirements are not considered in the financial statements.

Chapter VI

STATISTICAL TABLES

Shipping Statistics

Table 1.—Panama Canal Traffic—Fiscal Years 1975 Through 1984

Fiscal year	Total traffic			Traffic assessed tolls on net tonnage basis		Traffic assessed tolls on displacement tonnage basis	
	Number of transits	Tolls	Long tons of cargo	Number of transits	Panama Canal net tonnage	Number of transits	Displacement tonnage
OCEANGOING COMMERCIAL TRAFFIC ¹							
1975	13,609	\$141,898,218	140,101,459	13,565	135,053,680	44	171,006
1976	12,157	134,204,402	117,212,266	12,123	127,778,919	34	131,258
*TQ	3,037	35,272,300	30,888,300	3,031	33,686,757	6	23,205
1977	11,896	163,826,571	122,978,785	11,868	133,353,132	28	108,642
1978	12,677	194,773,111	142,518,288	12,647	156,907,260	30	109,798
1979	12,935	208,376,741	154,110,866	12,902	167,470,601	33	136,600
1980	13,507	291,838,590	167,214,935	13,476	182,063,175	31	137,593
1981	13,884	301,762,600	171,221,762	13,847	188,656,491	37	111,418
1982	14,009	323,958,366	185,452,332	13,976	202,884,207	33	129,684
1983	11,707	285,983,805	145,590,759	11,668	169,503,918	39	132,431
1984	11,230	286,677,844	140,470,818	11,199	162,334,838	31	116,335
OCEANGOING U.S. GOVERNMENT TRAFFIC ¹							
1975	170	\$1,376,797	526,497	148	1,287,777	22	122,953
1976	85	727,983	177,508	68	641,137	17	87,728
*TQ	18	166,779	55,383	13	118,300	5	65,025
1977	88	805,983	212,677	59	577,483	29	165,148
1978	103	889,093	291,115	70	589,085	33	214,145
1979	111	1,054,169	357,482	80	726,755	31	207,640
1980	101	1,515,326	396,481	73	844,748	28	217,055
1981	89	1,241,442	301,776	68	705,936	21	143,121
1982	110	1,546,746	285,451	67	794,282	43	309,206
1983	125	1,721,925	354,873	77	812,840	48	350,699
1984	137	2,388,272	329,607	88	1,131,865	49	410,682
FREE OCEANGOING TRAFFIC ^{1 2}							
1975	7	.....	.....	2	694	5	10,400
1976	38	.....	5,635	17	22,854	21	41,655
*TQ	4	.....	.....	3	1,474	1	1,800
1977	13	.....	380	8	21,252	5	10,380
1978	5	.....	.....	4	3,789	1	1,100
1979	10	.....	1	8	4,527	2	2,194
1980	6	.....	.....	3	1,686	3	4,810
1981	11	.....	.....	4	2,248	7	8,544
1982	23	.....	.....	9	5,010	14	21,903
1983	14	.....	2,504	9	9,119	5	5,986
1984	17	.....	.....	4	2,224	13	21,025
TOTAL OCEANGOING TRAFFIC ¹							
1975	13,786	\$143,275,015	140,627,956	13,715	136,342,151	71	304,359
1976	12,280	134,932,385	117,395,409	12,208	128,442,910	72	260,641
*TQ	3,059	35,439,079	30,943,683	3,047	33,806,531	12	90,030
1977	11,997	164,632,554	123,191,842	11,935	133,951,867	62	284,170
1978	12,785	195,662,204	142,809,403	12,721	157,500,134	64	325,043
1979	13,056	209,430,910	154,468,349	12,990	168,201,883	66	346,434
1980	13,614	293,353,916	167,611,416	13,552	182,909,609	62	359,458
1981	13,984	303,004,042	171,523,538	13,919	189,364,675	65	263,083
1982	14,142	325,505,112	185,737,783	14,052	203,683,499	90	460,793
1983	11,846	287,705,730	145,948,136	11,754	170,325,877	92	489,116
1984	11,384	289,066,116	140,800,425	11,291	163,469,927	93	548,042

Table 1.—Panama Canal Traffic—Fiscal Years 1975 Through 1984
(Continued)

Fiscal year	Total traffic			Traffic assessed tolls on net tonnage basis		Traffic assessed tolls on displacement tonnage basis	
	Number of transits	Tolls	Long tons of cargo	Number of transits	Panama Canal net tonnage	Number of transits	Displacement tonnage
SMALL COMMERCIAL TRAFFIC³							
1975	804	\$52,684	7,939	798	54,174	6	1,120
1976	745	49,314	6,866	737	50,281	8	1,229
*TQ	204	24,785	1,236	204	15,389	...	.....
1977	759	39,960	2,820	751	48,717	8	1,108
1978	792	63,526	6,962	785	57,827	7	1,040
1979	936	76,591	7,718	934	69,229	2	94
1980	788	74,898	787	787	52,052	1	57
1981	791	65,604	1,355	788	44,962	3	279
1982	830	73,228	928	826	50,399	4	315
1983	810	73,887	669	810	48,033	..	.....
1984	802	76,921	652	800	47,787	2	145
SMALL U.S. GOVERNMENT TRAFFIC³							
1975	110	\$4,729	1	27	1,023	83	6,382
1976	136	6,168	.....	18	1,159	118	8,019
*TQ	36	1,613	23	4	481	32	2,144
1977	277	12,851	.....	22	953	255	16,769
1978	187	9,504	8	25	1,446	162	10,742
1979	315	14,375	9	48	2,865	267	15,519
1980	276	15,129	.....	29	1,357	247	14,313
1981	225	10,712	2	16	751	209	10,431
1982	241	10,757	.....	12	415	229	10,973
1983	242	11,406	5	11	332	230	11,177
1984	241	11,998	.....	8	336	233	11,282
SMALL FREE TRAFFIC^{2, 3}							
1975	35	.....	31	30	1,518	5	185
1976	40	.....	50	31	1,484	9	701
*TQ	14	.....	.....	14	944	...	.....
1977	54	.....	10	50	2,840	4	466
1978	44	.....	20	42	2,986	2	72
1979	55	.....	3	47	2,160	8	632
1980	47	.....	.....	41	2,317	6	560
1981	50	.....	.....	41	2,613	9	1,012
1982	58	.....	70	40	2,803	18	1,172
1983	56	.....	8	39	2,321	17	2,010
1984	96	.....	59	86	4,637	10	1,360
TOTAL PANAMA CANAL TRAFFIC							
1975	14,735	\$143,332,428	140,635,927	14,570	136,398,866	165	312,046
1976	13,201	134,987,867	117,402,325	12,994	128,495,834	207	270,590
*TQ	3,313	35,465,477	30,944,942	3,269	33,823,345	44	92,174
1977	13,087	164,685,365	123,194,672	12,758	134,004,377	329	302,513
1978	13,808	195,735,234	142,816,393	13,573	157,562,393	235	336,897
1979	14,362	209,521,876	154,476,079	14,019	168,276,137	343	362,679
1980	14,725	293,443,943	167,612,203	14,409	182,965,335	316	374,388
1981	15,050	303,080,358	171,524,895	14,764	189,413,001	286	274,805
1982	15,271	325,589,097	185,738,781	14,930	203,737,116	341	473,253
1983	12,954	287,791,023	145,948,818	12,615	170,376,563	339	502,303
1984	12,523	289,155,035	140,801,136	12,185	163,521,687	338	560,829

¹Oceangoing traffic includes ships of 300 net tons and over, Panama Canal measurement, or of 500 displacement tons and over on vessels paying tolls on displacement basis (dredges, warships, etc.).

²Free traffic includes ships of the Colombian and Panamanian Governments and ships transiting for repair by the Commission.

³Includes vessels under 300 net tons, Panama Canal measurement (or under 500 displacement tons for vessels assessed on displacement tonnage).

*Effective 10-1-76 the fiscal year for all U.S. Government agencies was changed from July 1 through June 30, to October 1 through September 30. For continuity purposes, July, August, and September 1976 were designated the Transition Quarter.

Table 2.—Oceangoing Commercial Traffic by Months—Fiscal Years 1984 and 1983

	Number of Transits		Panama Canal Net Tonnage		Long Tons of Cargo		Tolls	
	1983-84	1982-83	1983-84	1982-83	1983-84	1982-83	1983-84	1982-83
October.....	901	1,123	12,851,296	16,748,651	10,983,458	14,529,313	\$ 22,706,763	\$ 26,680,275
November.....	871	976	12,842,014	14,437,271	10,938,373	12,367,803	22,570,931	23,155,390
December.....	915	1,038	13,066,789	15,159,478	10,737,399	12,748,194	22,960,793	24,211,772
January.....	913	994	13,552,761	14,281,604	11,402,597	11,852,750	23,970,069	22,886,215
February.....	898	901	12,854,233	13,006,067	11,084,966	10,838,426	22,680,013	20,902,219
March.....	984	1,044	13,705,979	14,616,188	11,637,624	12,738,743	24,204,031	24,892,027
April.....	963	999	13,295,263	14,448,846	11,342,269	11,845,294	23,497,029	25,421,185
May.....	996	955	14,377,680	13,618,472	12,354,653	11,590,813	25,377,511	24,122,215
June.....	950	953	14,056,164	13,729,177	12,139,019	11,674,644	24,830,193	24,069,247
July.....	934	926	13,488,255	13,257,916	12,360,590	11,831,786	23,995,141	23,411,530
August.....	990	923	14,642,511	13,456,699	12,991,960	11,977,380	25,808,306	23,733,896
September.....	915	875	13,601,893	12,743,549	12,497,910	11,595,613	24,077,064	22,497,834
Total.....	11,230	11,707	162,334,838	169,503,918	140,470,818	145,590,759	\$286,677,844	\$285,983,805
Average per month.....	936	976	13,527,903	14,125,326	11,705,902	12,132,563	\$23,889,820	\$23,831,984

NOTE: The above includes only commercial vessels of 300 net tons and over, Panama Canal measurement, or of 500 displacement tons and over on vessels paying tolls on a displacement tonnage basis. Statistics on these vessels, except as relates to displacement tonnage, have been included in the table above.

Table 3.—Canal Traffic¹ by Flag of Vessel—Fiscal Year 1984

Flag	Number of transits	Measured tonnage			Long tons of cargo
		Panama Canal net	Registered gross	Tolls	
Algeria	4	44,066	53,926	\$78,239	49,815
Argentina	2	45,478	53,038	83,225	36,605
Australia	10	212,000	256,910	387,960	155,444
Austria	3	68,331	80,532	125,046	53,008
Bahamas	33	434,128	527,791	790,760	379,103
Belgium	54	966,662	1,140,631	1,755,355	1,111,099
Bermuda	3	29,196	23,799	46,227	2,241
Bolivia	9	76,599	96,300	140,176	68,255
Brazil	32	269,075	323,514	490,310	125,706
Bulgaria	8	50,158	60,839	91,789	40,348
Canada	11	33,114	48,306	59,007	19,034
Cayman Islands	6	4,164	2,200	7,117	1,417
Chile	100	927,020	1,054,342	1,638,245	852,909
Colombia	168	2,301,267	2,551,048	4,120,048	1,562,699
Costa Rica	6	5,682	5,952	10,398	1,741
Cuba	125	751,909	883,884	1,349,906	578,353
Cyprus	86	804,007	872,642	1,454,435	805,870
Czechoslovakia	1	8,811	10,416	16,124	13,858
Denmark	250	4,913,177	6,248,367	8,741,658	3,555,601
Dominican Republic	1	8,275	9,661	15,143	14,436
East Germany	10	53,886	58,750	88,642	15,379
Ecuador	454	3,924,611	4,584,842	6,815,958	2,914,773
Egypt	1	18,762	22,606	34,334	30,394
Finland	24	313,025	383,614	565,026	386,915
France	78	1,322,464	1,178,910	2,434,016	854,638
Ghana	3	29,544	39,012	54,066	24,028
Greece	788	12,151,998	13,808,383	21,402,463	14,522,261
Honduras	25	140,887	173,576	239,685	44,076
Hong Kong	15	346,808	429,572	621,783	537,387
India	18	423,865	510,336	747,399	527,389
Indonesia	10	114,396	131,907	209,345	79,597
Iraq	2	20,478	25,948	37,475	38,197
Ireland	4	31,716	37,830	57,435	53,477
Israel	67	1,349,688	1,770,153	2,469,929	861,572
Italy	93	1,104,287	1,390,968	2,005,981	791,049
Japan	1,191	22,190,145	18,775,393	38,425,469	11,873,771
Kuwait	2	24,204	30,892	44,293	15,031
Liberia	1,379	25,493,575	26,043,109	44,926,127	25,359,753
Libya	6	40,855	51,486	66,963	28,071
Malaysia	14	229,705	275,563	420,360	392,116
Malta	23	229,373	262,391	408,641	270,423
Mauritania	4	2,509	1,049	3,880	.....
Mexico	97	1,872,156	2,406,042	3,141,887	1,638,344
Morocco	7	76,047	93,091	137,127	124,463
Netherlands	216	2,319,145	2,586,488	4,162,252	1,884,015
New Zealand	4	50,241	52,028	94,372	26,338
Nicaragua	22	37,382	32,940	65,770	17,396
Norway	337	6,269,607	6,699,166	11,079,426	5,800,614
Panama	1,770	22,351,853	22,318,616	39,406,920	20,570,055
People's Republic of China	132	2,630,788	2,925,450	4,661,452	2,588,032
Peru	197	2,130,210	2,574,852	3,754,032	2,278,542
Philippines	170	2,219,499	2,183,090	3,965,557	2,620,480
Poland	67	488,263	538,356	869,785	257,326
Portugal	4	4,318	5,375	7,902	3,015
Rumania	4	35,166	41,166	57,848	16,672
St. Vincent	3	19,298	22,812	31,820	11,889
Samoa	2	18,398	21,100	33,668	15,166
Saudi Arabia	15	95,492	89,626	153,465	17,362
Singapore	222	4,375,177	3,903,033	7,589,730	3,304,008
South Korea	185	2,744,765	3,299,467	5,016,393	3,625,203
Spain	126	729,832	715,442	1,323,680	574,667
Sri Lanka	4	54,170	61,826	92,869	45,514
Sweden	115	2,503,812	2,045,346	4,522,016	1,066,348
Switzerland	79	766,623	906,526	1,400,295	349,291
Taiwan	167	3,826,453	4,744,484	6,918,014	3,104,410
Thailand	2	9,522	11,046	17,425	7,019
Tonga	1	422	424	772	121
Turkey	12	104,198	128,082	186,624	132,954
United Arab Emirates	3	25,421	31,191	43,392	9,321
United Kingdom	557	9,432,702	11,333,745	16,869,077	9,570,188
United States	742	8,718,555	9,888,001	15,235,736	6,922,442
Uruguay	3	13,708	14,433	24,402	21,825
U.S.S.R.	435	3,062,916	3,484,111	5,380,104	1,823,706
Venezuela	87	193,984	220,807	339,298	105,420
West Germany	232	2,817,494	3,305,859	5,112,291	2,022,601
Yugoslavia	88	827,321	983,361	1,502,005	868,232
Total	11,230	162,334,838	171,957,770	\$286,677,844	140,470,818

¹ Includes only commercial vessels of 300 net tons and over, Panama Canal measurement, or of 500 displacement tons and over on vessels paying tolls on displacement basis (dredges, warships, etc.).

² Includes 3 transits where no registered tonnage was reported.

Table 3.—Canal Traffic¹ by Flag of Vessel—Fiscal Year 1984—Continued

NOTE.—In Canal traffic statistics, foreign naval vessels such as transports, supply ships, tankers, etc., with a measurement of 300 net tons (Panama Canal measurement) and over, and vessels of war, dredges, etc., with a displacement of 500 tons and over, are classified as oceangoing commercial vessels. Statistics on these vessels, except as related to displacement tonnage, have been included in the table above. As displacement tonnage cannot be combined with net tonnage, the following table shows statistics covering 31 vessels which transited the Canal during fiscal year 1984 and paid tolls on displacement tonnage.

<i>Flag</i>	<i>Type</i>	<i>Number of transits</i>	<i>Displace- ment tonnage</i>	<i>Tolls</i>
Canada	Dredge	1	2,370	\$2,417
Chile	Naval	2	7,500	7,650
Ecuador	do	6	4,739	4,834
France	do	3	18,916	19,294
Italy	do	2	13,100	13,362
Japan	do	4	14,590	14,882
Netherlands	Dredge	3	19,014	19,394
New Zealand	Naval	1	3,060	3,121
People's Republic of China	Dredge	1	15,216	15,520
Peru	Naval	4	4,732	4,827
Turkey	do	1	2,200	2,244
United Kingdom	do	2	6,398	6,526
United States	Dredge	1	4,500	4,590
Total		31	116,335	\$118,661

Statistics compiled by Office of Executive Planning.

Table 5.—Laden and Ballast Traffic by Flag of Vessel
Fiscal Year 1984

	Laden			Ballast		
	Num- ber of transits	Panama Canal net tonnage	Tolls	Num- ber of transits	Panama Canal net tonnage	Tolls
Algeria	3	37,574	\$ 68,760	1	6,492	\$ 9,478
Argentina	2	45,478	83,225	.....	.....	.....
Australia	10	212,000	387,960	.....	.....	.....
Austria	3	68,331	125,046	.....	.....	.....
Bahamas	31	424,143	776,182	2	9,985	14,578
Belgium	50	929,807	1,701,547	4	36,855	53,808
Bermuda	1	9,732	17,810	2	19,464	28,417
Bolivia	9	76,599	140,176	.....	.....	.....
Brazil	31	263,407	482,035	1	5,668	8,275
Bulgaria	8	50,158	91,789	.....	.....	.....
Canada	6	22,279	40,771	4	10,835	15,819
Cayman Islands	4	2,803	5,129	2	1,361	1,987
Chile	79	749,043	1,370,749	19	177,977	259,846
Colombia	147	2,054,591	3,759,902	21	246,676	360,147
Costa Rica	6	5,682	10,398	.....	.....	.....
Cuba	109	681,402	1,246,966	16	70,507	102,940
Cyprus	76	758,337	1,387,757	10	45,670	66,678
Czechoslovakia	1	8,811	16,124	.....	.....	.....
Denmark	210	4,238,973	7,757,321	40	674,204	984,338
Dominican Republic	1	8,275	15,143	.....	.....	.....
East Germany	5	26,943	49,306	5	26,943	39,337
Ecuador	361	2,922,140	5,347,516	87	1,002,471	1,463,608
Egypt	1	18,762	34,334	.....	.....	.....
Finland	23	291,917	534,208	1	21,108	30,818
France	71	1,307,903	2,393,462	4	14,561	21,259
Ghana	3	29,544	54,066	.....	.....	.....
Greece	654	9,893,367	18,104,862	134	2,258,631	3,297,601
Honduras	17	91,866	168,115	8	49,021	71,571
Hong Kong	13	312,008	570,975	2	34,800	50,808
India	15	347,450	635,834	3	76,415	111,566
Indonesia	10	114,396	209,345	.....	.....	.....
Iraq	2	20,478	37,475	.....	.....	.....
Ireland	3	30,079	55,045	1	1,637	2,390
Israel	67	1,349,688	2,469,929	.....	.....	.....
Italy	84	1,027,999	1,881,238	7	76,288	111,380
Japan	923	16,251,285	29,739,851	264	5,938,860	8,670,737
Kuwait	2	24,204	44,293	.....	.....	.....
Liberia	1,144	20,820,533	38,101,574	235	4,673,042	6,824,786
Libya	3	19,770	36,179	3	21,085	30,784
Malaysia	14	229,705	420,360	.....	.....	.....
Malta	20	199,341	364,794	3	30,032	43,847
Mauritania	1	586	1,072	3	1,923	2,808
Mexico	59	1,104,160	2,020,613	38	767,996	1,121,274
Morocco	6	70,535	129,079	1	5,512	8,048
Netherlands	175	2,045,333	3,742,959	38	273,812	399,766
New Zealand	2	48,376	88,528	1	1,865	2,723
Nicaragua	15	30,249	55,356	7	7,133	10,414
Norway	275	5,204,864	9,524,901	62	1,064,743	1,554,525
Panama	1,474	18,305,985	33,499,952	296	4,045,868	5,906,967
People's Republic of China	110	2,175,625	3,981,394	21	455,163	664,538
Peru	166	1,727,293	3,160,946	27	402,917	588,259
Philippines	152	1,959,699	3,586,249	18	259,800	379,308
Poland	58	424,111	776,123	9	64,152	93,662
Portugal	4	4,318	7,902	.....	.....	.....
Rumania	2	17,583	32,177	2	17,583	25,671
Saint Vincent	2	9,850	18,026	1	9,448	13,794
Samoa	2	18,398	33,668	.....	.....	.....
Saudi Arabia	6	37,965	69,476	9	57,527	83,989
Singapore	179	3,248,571	5,944,885	43	1,126,606	1,644,845
South Korea	180	2,727,124	4,990,637	5	17,641	25,756
Spain	111	697,636	1,276,674	15	32,196	47,006
Sri Lanka	2	37,245	68,158	2	16,925	24,710
Sweden	107	2,341,757	4,285,415	8	162,055	236,600
Switzerland	78	759,528	1,389,936	1	7,095	10,359
Taiwan	158	3,598,091	6,584,507	9	228,362	333,409
Thailand	2	9,522	17,425	.....	.....	.....
Tonga	1	422	772	.....	.....	.....
Turkey	9	87,166	159,514	2	17,032	24,867
United Arab Emirates	2	16,965	31,046	1	8,456	12,346
United Kingdom	473	8,353,530	15,286,960	82	1,079,172	1,575,591
United States	590	6,762,312	12,375,031	151	1,956,243	2,856,115
Uruguay	2	11,859	21,702	1	1,849	2,700
U.S.S.R.	345	2,454,720	4,492,138	90	608,196	887,966
Venezuela	63	151,570	277,373	24	42,414	61,924
West Germany	211	2,699,323	4,939,761	21	118,171	172,530
Yugoslavia	84	794,908	1,454,682	4	32,413	47,323
Total	9,328	133,913,982	\$245,062,587	1,871	28,420,947	\$41,496,595

Above table involves only commercial vessels of 300 net tons or over, Panama Canal measurement.

Table 6.—Segregation of Transits¹ by Registered Gross Tonnage—Fiscal Year 1984

Flag	Under 2,000	2,000 to 3,999	4,000 to 5,999	6,000 to 7,999	8,000 to 9,999	10,000 to 14,999	15,000 to 19,999	20,000 to 29,999	30,000 to 39,999	40,000 and over	Total ²	Registered gross tonnage	Average gross tonnage per vessel
Algeria					2		2				4	53,926	13,482
Argentina								2			2	53,038	26,519
Australia										1	10	256,910	25,691
Austria								3			3	80,532	26,844
Bahamas		4						17			33	527,791	15,994
Belgium	1			8	1	2		22	9		54	1,140,631	21,123
Bermuda				3							3	23,799	7,933
Bolivia						9					9	96,300	10,700
Brazil			2	1	13	14	2				32	323,514	10,110
Bulgaria		2	4				2				8	60,839	7,605
Canada	4	3				3					10	44,930	4,493
Cayman Islands	6										6	2,200	367
Chile	7	9			13	68			1		98	1,053,943	10,755
Colombia	4	2	9	2	1	78	33	39			168	2,551,048	15,185
Costa Rica	6										6	5,952	992
Cuba		47	4	7	43	23	1				125	883,884	7,071
Cyprus	4	8	11	5	32	8	11	6	1		86	872,642	10,147
Czechoslovakia						1					1	10,416	10,416
Denmark		2	8		12	8	11	29	112	26	250	6,248,367	24,993
Dominican Republic											1	9,661	9,661
East Germany			6	4							10	58,750	5,875
Ecuador	9	36	28	152	49	61	93	20			448	4,582,689	10,229
Egypt								1			1	22,606	22,606
Finland						14	6	4			24	383,614	15,984
France	11					28	18	18			75	1,176,770	15,690
Ghana						3					3	39,012	13,004
Greece	15	3	22	20	103	239	161	63	162		788	13,808,383	17,523
Honduras	3	16		6	16			5			25	173,576	6,943
Hong Kong				2				1	7	1	15	429,572	28,638
India						3	4		5	5	18	510,336	28,352
Indonesia					4		6				10	131,907	13,191
Iraq						2					2	25,948	12,974
Ireland	2						2				4	37,830	9,458
Israel								67			67	1,770,153	26,420
Italy			7		28	12	33		3		91	1,375,118	15,111
Japan	131	88	60	128	81	164	215	93	201	26	1,187	18,775,393	15,818
Kuwait							2				2	30,892	15,446
Liberia	3	15	74	60	131	208	364	264	255	5	1,379	26,043,109	18,886

[illegible]

^d Includes only commercial vessels of 300 net tons and over, Panama Canal measurement.

² Excludes 31 vessels paying tolls on displacement tonnage basis and 3 transits where no registered tonnage was reported.

713	525	550	Machinery and Equipment.....	1,631	1,475	1,538
93	59	59	Agricultural machinery and implements.....	32	16	24
338	243	292	Automobiles, trucks, accessories and parts.....	1,464	1,305	1,343
150	104	91	Construction machinery and equipment.....	69	65	56
65	48	41	Electrical machinery and apparatus.....	29	33	45
4	2	2	Motorcycles, bicycles, and parts.....	9	19	24
63	69	64	Other and unclassified.....	28	37	46
1,896	1,632	1,842	Manufactures of Iron and Steel.....	5,424	3,563	5,178
227	123	168	Angles, shapes, and sections.....	294	403	514
9	10	54	Nails, tacks, and spikes.....	118	70	96
750	950	869	Plates, sheets, and coils.....	2,084	1,277	1,145
148	72	98	Tubes, pipes, and fittings.....	1,039	696	1,842
317	161	307	Wire, bars, and rods.....	420	314	299
445	316	347	Other and unclassified.....	1,470	803	1,282
228	228	177	Minerals, miscellaneous.....	3,691	3,070	3,831
23	20	18	Asbestos.....	4	3	4
2	12	5	Borax.....	414	391	426
3	2	9	Infusorial earth.....	9	5	10
118	122	77	Salt.....	696	577	585
80	61	55	Soda and sodium compounds.....	136	149	231
2	11	13	Sulfur.....	2,431	1,945	2,575
6,902	7,950	8,617	Nitrates, Phosphates, and Potash.....	1,263	1,467	1,553
464	379	535	Ammonium compounds.....	48	26	8
1	1	.....	Fishmeal.....	725	823	989
76	27	84	Nitrate of soda.....	170	277	208
5,149	5,826	6,395	Phosphates.....	86	143	70
108	127	113	Potash.....	175	142	198
1,104	1,490	1,490	Fertilizers, unclassified.....	59	56	80
2,166	3,391	3,636	Ores and Metals.....	5,028	4,577	5,676
741	750	888	Ores.....	3,825	2,937	4,136
366	375	454	Alumina/bauxite.....	892	107	180
4	.....	4	Chrome.....	71	11	50
29	1	.....	Copper.....	390	414	730
23	69	11	Iron.....	73	54	262
35	18	11	Lead.....	167	124	149
184	133	79	Manganese.....	91	88	68
.....	.....	.....	Tin.....	32	31	43
37	97	131	Zinc.....	572	468	555
63	57	197	Other and unclassified.....	1,539	1,640	2,099

Table 7.—Principal Commodities Shipped Through Canal by Fiscal Years—Continued

Commodity	[Thousands of long tons]			North Pacific to Atlantic		
	1984	1983	1982	1984	1983	1982
Metals	1,203	1,640	1,540	53	57	64
Aluminum	885	1,162	944	8	60	100
Copper	8	129	96	3	2	3
Iron	85	129	96	19	21	29
Lead	3	2	3	104	129	209
Scrap	19	21	29	46	80	95
Tin, including tinplate	32	15	12	4,026	3,491	3,471
Zinc	6	13	29	46	42	56
Other and unclassified	42	76	35	49	31	60
Other Agricultural Commodities	2,028	1,953	1,603	458	467	451
Beans, edible	41	56	43	11	14	9
Cocoa and cacao beans	3	3	3	110	123	99
Coffee, raw and processed	20	19	9	672	827	878
Copra and coconuts	1	.....	1	336	64	58
Cotton, raw	160	28	15	48	36	42
Molasses	11	3	3	96	61	40
Oilseeds	160	91	36	3	3	3
Peas, dry	3	51	.....	2,179	1,803	1,752
Rubber, raw	1	.....	.....	19	20	22
Skins and hides	2	.....	.....	18,107	20,191	45,324
Sugar	1,624	1,701	1,493	8	6	.....
Wool, raw	2	1	.....	10,267	14,123	40,118
Petroleum and Products	13,691	13,727	12,555	815	569	519
Asphalt	128	90	155	3,836	2,800	2,316
Crude oil	4,410	4,547	3,898	760	347	304
Diesel oil	1,696	1,277	1,129	77	9	14
Fuel oil, residual	2,121	3,318	3,007	.....	.....	6
Gasoline	2,159	1,352	983	.....	.....	.....
Jet fuel	1,264	627	593	.....	.....	.....
Kerosene	108	45	104	.....	.....	.....
Liquefied natural gas	259	799	737	46	28	9
Lubricating oil	657	524	689	167	114	149
Petroleum coke	162	712	460	1,752	1,624	1,404

727	436	798	Other and unclassified	798	378	571	485
9,430	9,309	10,717	Miscellaneous	10,717	8,698	7,627	7,760
46	21	24	Miscellaneous	11	11	5	18
6	4	4	Bricks and tile	1	1	1	80
60	64	174	Carbon black	5	5	7	7
445	380	357	Cement	25	28	28	9
47	21	40	Clay, fire and china	15	17	17	13
252	242	219	Fibers, plant	31	54	54	35
50	20	24	Flour, wheat	6	11	11	15
46	29	36	Glass and glassware	37	37	37	47
36	31	16	Groceries, miscellaneous	7	5	5	6
21	25	41	Liquors and wines	.....	1	1	1
3	4	4	Marble and stone	92	91	91	108
.....	8	17	Oil, coconut	164	87	176	176
311	245	247	Oil, fish	95	108	230	230
696	702	761	Oil, vegetable	368	514	537	537
2	1	3	Paper and paper products	3	3	3	6
347	210	168	Porcelainware	3	6	7	7
24	29	45	Resin	38	49	32	32
1	34	1	Rubber, manufactured	10	3	22	22
19	15	72	Seeds, excluding oilseeds	1	.....	.....	8
57	67	66	Slag, clinkers, and dross	40	39	39	14
142	48	47	Tallow	43	41	43	43
59	46	10	Textiles	4	3	3	3
8	13	16	Tobacco and manufactures	17	3	3	6
6,752	7,050	8,326	Wax, paraffin	7,681	6,514	6,337	6,337
96,557	87,829	78,259	All other and unclassified	62,212	57,762	88,895	88,895
			Total	62,212	57,762	88,895	88,895

Table 8.—Origin and Destination of Commercial Cargo Through the Panama Canal From Atlantic to Pacific During Fiscal Year 1984
Segregated by Countries in Principal Trade Routes

	To West Coast United States				To W.C. Canada		To West Coast Central America								
	Alaska	Hawaii	Main-land	Total	Canada		Costa Rica	El Salvador	Guatemala	Mexico	Nicaragua	Panama	Central America (other) ¹	Balboa, R.P. ²	Total
[Long tons]															
EAST COAST NORTH AMERICA:															
United States:															
North Atlantic ports	1	6,922	280,094	287,017	.....	.....	4,330	60,539	.....	33,008	3,908	388	.....	38,064	140,237
South Atlantic ports .....	.....	654	55,047	55,701	324,245	.....	6,791	.....	.....	73,544	1,025	17,034	2,705	11,365	112,464
Great Lakes ports .....	.....	.....	.....	.....	.....	.....	.....	16,091	.....	25,708	.....	.....	.....	8,627	50,426
Gulf ports	9	10	1,046,785	1,046,804	621,872	.....	181,983	302,460	.....	424,799	70,843	36,374	7,681	312,984	1,337,124
United States (other) ¹	21,098	.....	213,119	234,217	49	.....	.....	3,831	.....	.....	.....	5,478	2,947	57,505	69,761
Total United States	10	28,684	1,595,045	1,623,739	946,166	.....	193,104	382,921	.....	557,059	75,776	59,274	13,333	428,545	1,710,012
EAST COAST CANADA:															
.....	.....	.....	46,483	46,483	1,438	.....	3,716	3,684	.....	.....	15,467	4,131	8,935	.....	35,933
EAST COAST CENTRAL AMERICA:															
Mexico .....	.....	.....	17,237	17,237	.....	.....	.....	339,837	257,036	3,494,440	136,094	2,362	.....	.....	4,229,769
Panama .....	.....	.....	330	330	.....	.....	.....	8,011	.....	.....	1,111	477	.....	55,510	65,109
Central America (other) ¹ .....	.....	.....	10,871	10,871	.....	.....	.....	.....	.....	.....	.....	631	69	9,618	10,318
Cristobal, R.P. ² .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	779	.....	83	.....	862
Total Central America .....	.....	.....	28,438	28,438	.....	.....	.....	347,848	257,036	3,494,440	137,984	3,470	152	65,128	4,306,058
EAST COAST SOUTH AMERICA:															
Brazil .....	.....	.....	310,003	310,003	43,955	.....	883	4,876	.....	185,970	5,504	.....	.....	.....	197,233
Colombia .....	.....	.....	108,440	108,440	.....	.....	.....	3,038	.....	103,052	1,612	.....	52	1,181	108,935
Venezuela	32,350	58,959	400,405	491,714	5,119	.....	10,725	303,088	311,995	9,728	5,800	5,800	923	45,901	688,160
South America (other) ¹ .....	.....	.....	23,658	23,658	9,890	.....	210	.....	.....	20,664	17,165	.....	.....	.....	38,039
Total South America	32,350	58,959	842,506	933,815	58,964	.....	11,818	311,002	311,995	309,686	34,009	5,800	975	47,082	1,032,367
WEST INDIES:															
Cuba .....	.....	.....	14,074	14,074	.....	.....	681	2,374	.....	12,525	60,601	.....	2,287	.....	78,468
Jamaica .....	.....	.....	138,380	138,380	.....	.....	5,846	271	.....	.....	.....	.....	.....	.....	6,117
Netherlands West Indies .....	.....	100,092	162,336	262,428	.....	.....	8,838	2,573	103,458	.....	8,647	20,156	40,649	96,679	281,000
Trinidad/ Tobago .....	.....	.....	141,654	141,654	.....	.....	5,324	.....	.....	.....	.....	.....	.....	.....	5,324
West Indies (other) ¹	25,719	167,677	172,888	366,284	.....	.....	.....	.....	.....	.....	2,231	1,071	.....	.....	3,302
Total West Indies	25,719	267,769	629,332	922,820	.....	.....	20,689	5,218	103,458	12,525	71,479	21,227	42,936	96,679	374,211

EUROPE:															
Belgium	.....	.....	410,631	410,631	56,397	17	44,210	.....	.....	.....	17,687	2,436	2,606	5,425	72,381
France	.....	.....	140,432	140,432	34,382	881	15,034	.....	836	.....	32,254	86	1,650	.....	54,995
Italy	.....	.....	145,775	145,775	20,522	13	2,057	112	3,436	.....	3,615	.....	309	.....	9,542
Netherlands	.....	.....	392,703	392,703	40,216	2,592	11,251	59,384	868	.....	28,223	630	283	.....	104,231
Norway	.....	.....	179,805	179,805	12,048	.....	.....	10,661	.....	.....	7,121	.....	.....	.....	17,782
Spain-Portugal	.....	1,378	268,944	270,322	102,264	77	14,937	.....	8,755	.....	10,036	.....	2,583	667	37,055
Sweden	.....	.....	109,677	109,677	12,181	.....	.....	.....	202	.....	7,156	.....	.....	116	7,474
United Kingdom	.....	5,452	129,831	135,283	13,838	598	3,518	.....	5,131	.....	1,384	263	3,052	.....	13,946
U.S.S.R.	.....	.....	22,870	22,870	.....	.....	73	.....	875	.....	335,428	.....	51	.....	336,427
West Germany	.....	334	395,578	398,459	46,207	17,348	14,673	8,550	13,973	.....	10,124	4,221	3,023	826	72,738
Europe (other) ¹	.....	454	739,808	740,262	109,227	690	65,622	.....	12,788	.....	18,497	2,000	21,640	266	121,503
Total Europe	.....	3,925	2,936,054	2,946,219	447,282	23,216	171,375	82,961	46,864	.....	471,525	9,636	35,197	7,300	848,074
ASIA (MIDDLE EAST)	.....	2,606	.....	58,352	60,958	2,801	.....	.....	.....	.....	.....	.....	.....	.....	.....
AFRICA	.....	.....	.....	291,585	291,585	3,599	.....	.....	1,469	.....	2,953	.....	.....	.....	4,422
Grand total	.....	64,610	361,652	6,427,795	6,854,057	1,460,250	252,543	1,222,048	755,450	4,422,043	809,193	103,538	101,528	644,734	8,311,077
Percent of Pacific-Bound Cargo	.....	0.1	0.5	8.2	8.8	1.9	0.3	1.6	1.0	5.7	1.0	0.1	0.1	0.8	10.6

See footnotes at end of table.

EUROPE:

Belgium	78,885	14,566	24,798	50,761	22,753	191,763	4,404	10,668	21,110	11,185	47,367
France	17,520	4,897	4,747	15,643	6,051	48,858	2,057	197,383	862	25,473	225,775
Italy	7,635	8,189	5,040	7,716	9,139	37,719	1,771	7,623	2,078	8,723	20,195
Netherlands	25,626	5,697	13,919	21,549	13,374	80,165	29,130	4,995	109,289	48,507	191,921
Norway	696	65	815	511	449	2,536	12,311	.....	.....	.....	12,311
Spain-Portugal	17,504	7,931	7,052	16,657	21,907	71,051	999	624	2,775	8,032	12,430
Sweden	17,976	2,714	2,281	5,004	5,505	33,480	.....	.....	1,043	14	1,057
United Kingdom	17,023	3,546	5,156	6,950	15,202	47,877	22,196	176	23,466	31,961	77,799
U.S.S.R. ....	.....	.....	11	774	75,400	76,185	.....	.....	16,291	.....	16,291
West Germany	64,533	11,293	36,302	66,797	31,201	210,126	8,850	7,775	11,422	15,089	43,136
Europe (other) ¹	67,312	29,048	92,617	48,152	41,790	278,919	67,103	41,280	42,236	92,360	242,979
Total Europe	314,710	87,946	192,738	240,514	242,771	1,078,679	148,821	270,524	230,572	241,344	891,261

AFRICA	2,017	.....	66	.....	777	2,860	1,052	.....	.....	30	1,082
Grand total	3,816,574	1,106,600	1,675,645	1,984,320	521,512	9,104,651	1,831,515	410,842	620,338	646,629	3,509,324
Percent of Pacific-Bound Cargo	4.9	1.4	2.1	2.5	0.7	11.6	2.3	0.5	0.8	0.8	4.5

See footnotes at end of table.

Table 8.—Origin and Destination of Commercial Cargo Through the Panama Canal From Atlantic to Pacific During Fiscal Year 1984
Segregated by Countries in Principal Trade Areas—Continued

[Long tons]

	To Asia										Percent of total Pacific- bound cargo			
	China (Main- land)	China (Taiwan)	Hong Kong	Indo- nesia	Japan	Philip- pine Islands	Singap- ore	South Korea	Thai- land	U.S.S.R. (other) ¹		Asia (other) ¹	Total	Grand total
EAST COAST NORTH AMERICA:														
United States:														
North Atlantic ports	236,645	1,154,514	145,941	3,691	4,413,861	8,376	57,182	1,122,294	3,041	.....	428,067	7,573,612	8,688,989	11.1
South Atlantic ports	324,568	183,258	136,320	20,339	940,986	7,587	35,108	37,344	1,278	.....	223,320	1,910,108	2,686,836	3.4
Great Lakes ports	.....	.....	.....	.....	189,164	.....	.....	26,513	11,635	.....	.....	227,312	350,641	0.4
Gulf ports	5,444,371	3,438,089	58,144	133,617	19,107,964	333,250	95,728	2,866,991	45,616	271,677	682,124	32,477,571	41,186,142	52.6
United States (other) ¹	92,220	447,373	235,811	9,640	359,179	4,311	88,943	146,897	7,484	.....	431,587	1,823,445	2,542,791	3.2
Total United States	6,097,804	5,223,234	576,216	167,287	25,011,154	353,524	276,961	4,200,039	69,054	271,677	1,765,098	44,012,048	55,455,399	70.9
EAST COAST CANADA														
.....	262,874	36,039	33,873	1,475	720,015	.....	27	106,922	.....	.....	313,469	1,474,694	1,822,035	2.3
EAST COAST CENTRAL AMERICA:														
Mexico	.....	1,890	.....	.....	63,533	.....	.....	3,112	336	.....	36,285	105,161	4,557,925	5.8
Panama	.....	.....	.....	.....	49	.....	.....	.....	.....	.....	.....	49	114,674	0.1
Central America (other) ¹	.....	10	.....	.....	20,494	.....	.....	.....	.....	.....	5,056	25,560	56,163	0.1
Cristobal, R.P. ²	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	59	59	6,451	.0
Total Central America	.....	1,900	.....	.....	84,076	.....	.....	3,112	336	.....	41,400	130,829	4,735,213	6.1
EAST COAST SOUTH AMERICA:														
Brazil	.....	7,813	.....	.....	100,205	.....	.....	3,655	.....	.....	4,931	116,604	758,363	1.0
Colombia	.....	.....	.....	.....	2,843	.....	.....	.....	.....	.....	839	3,682	622,268	0.8
Venezuela	30,211	26,235	25,726	.....	1,260,180	.....	.....	735	.....	.....	5,591	1,348,678	3,828,668	4.9
South America (other) ¹	4,585	5,258	.....	.....	50,690	.....	.....	.....	.....	.....	7,421	67,954	214,138	0.3
Total South America	34,796	39,306	25,726	.....	1,413,918	.....	.....	4,390	.....	839	17,943	1,536,918	5,423,437	6.9
WEST INDIES:														
Cuba	657,792	.....	.....	.....	277,715	.....	.....	.....	.....	118,012	93,173	1,146,692	1,347,231	1.7
Jamaica	.....	2,001	1,921	.....	5,208	.....	6	23	.....	.....	3,502	12,661	165,697	0.2
Netherlands West Indies	.....	22	2,657	1,995	4,125	.....	699	.....	.....	.....	31,228	40,726	1,337,937	1.7
Trinidad/Tobago	.....	10,450	.....	.....	32,220	.....	.....	15,788	.....	.....	30	58,488	283,926	0.4
West Indies (other) ¹	.....	6,425	31,634	.....	23,113	30,983	.....	.....	.....	.....	2,758	94,913	597,631	0.8
Total West Indies	657,792	18,898	36,212	1,995	342,381	30,983	705	15,811	.....	118,012	130,699	1,353,480	3,732,422	4.8

EUROPE:													
Belgium	319	.....	.....	6,720	.....	.....	35,497	.....	.....	86	42,622	821,161	1.0
France	307	.....	120	3,501	.....	.....	812	.....	.....	2,438	7,178	511,620	0.7
Italy	.....	.....	.....	382	.....	.....	20	.....	.....	2,549	2,951	236,704	0.3
Netherlands	39,633	.....	243	88,674	631	3,454	15,881	4,022	.....	64,056	216,594	1,025,830	1.3
Norway	.....	.....	.....	.....	.....	.....	2,500	.....	.....	2,198	4,698	229,180	0.3
Spain-Portugal	377	.....	356	8,614	.....	.....	34	.....	.....	3,992	13,373	506,495	0.6
Sweden	.....	.....	.....	9,029	.....	.....	.....	.....	.....	1,331	10,360	174,229	0.2
United Kingdom	413	.....	1,538	13,297	.....	8,995	40,830	.....	.....	17,075	88,539	377,282	0.5
U.S.S.R.	.....	.....	.....	.....	.....	.....	.....	.....	3,837	454	4,291	456,064	0.6
West Germany	947	.....	.....	5,852	.....	.....	572	.....	.....	80	8,866	779,532	1.0
Europe (other) ¹	1,528	.....	.....	5,171	153	3,549	1,629	4,000	.....	27,836	43,866	1,536,756	2.0
Total Europe	947	43,992	2,257	6,391	784	15,998	97,775	8,022	3,837	122,095	443,338	6,654,853	8.5
ASIA (MIDDLE EAST)													
AFRICA	.....	.....	.....	30	.....	.....	31	.....	.....	427	488	64,247	0.1
Grand total	7,954,213	5,363,369	674,289	177,148	385,291	293,691	4,429,796	77,412	394,365	2,397,726	49,019,940	78,259,299	0.5
Percent of Pacific-Bound Cargo	9.0	6.9	0.9	0.2	0.5	0.4	5.7	0.1	0.5	3.1	62.6	.....	100.0

¹ Includes cargo not routed to permit segregation between definite countries.
² Includes both local and transhipped cargo.

Table 9.—Origin and Destination of Commercial Cargo Through the Panama Canal From Pacific to Atlantic During Fiscal Year 1984 Segregated by Countries in Principal Trade Areas

[Long tons]

	To East Coast United States					To E.C. Canada		To East Coast Central America				
	North Atlantic ports	South Atlantic ports	Great Lakes ports	Gulf ports	United States (other) ¹	Total	Canada	Mexico	Panama	Central America (other) ¹	Cristobal R. P. ²	Total
WEST COAST NORTH AMERICA:												
United States:												
Alaska	655	.....	.....	360,604	31,057	391,661	.....	.....	.....	.....	.....	.....
Hawaii .....	.....	.....	.....	128,935	11,117	140,707	.....	.....	.....	.....	.....	.....
Mainland	662,090	61,587	.....	1,954,681	168,855	2,847,213	355,148	4,056	33,864	2,958	18,211	59,089
Total United States	662,745	61,587	.....	2,444,220	211,029	3,379,581	355,148	4,056	33,864	2,958	18,211	59,089
WEST COAST CANADA												
.....	682,133	292,498	.....	324,819	346,723	1,646,173	25,802	6,208	.....	.....	10	6,218
WEST COAST CENTRAL AMERICA:												
Costa Rica	22,766	22,819	.....	26,136	50,814	122,535	.....	20,619	.....	2,008	.....	22,627
El Salvador	28,106	19,227	.....	106,602	.....	153,935	.....	.....	1,240	.....	2,558	3,798
Guatemala	61,812	39,324	.....	27,791	47,970	176,897	.....	.....	.....	.....	.....	.....
Honduras	9,443	.....	.....	19,290	.....	28,733	.....	.....	.....	.....	.....	.....
Mexico	24,803	22,259	.....	180,311	Mexico	227,373	18,364	116,878	.....	.....	974	117,852
Nicaragua .....	.....	.....	.....	19,311	.....	19,311	.....	.....	.....	17,727	4	17,731
Panama	105,944	4,768	.....	127,478	5,700	243,890	.....	.....	.....	236	.....	236
Central America (other) ¹ .....	.....	.....	.....	16,533	10,000	26,533	.....	.....	.....	194	84	278
Balboa, R. P. ² .....	.....	132	.....	204	719	1,055	.....	.....	.....	.....	.....	.....
Total Central America	252,874	108,529	.....	523,656	115,203	1,000,262	18,364	137,497	1,240	20,165	3,620	162,522
WEST COAST SOUTH AMERICA:												
Chile	735,041	78,639	.....	272,123	125,682	1,211,485	73,975	2,108	.....	4,916	268	7,292
Colombia	75,847	15,647	.....	159,288	26,203	276,985	31,136	647	.....	.....	.....	647
Ecuador	806,664	34,478	.....	3,358,545	257,739	4,457,426	52,167	321	865,161	2,172	339	867,993
Peru	1,221,176	38,009	1,103	610,938	275,194	2,146,420	9,295	46,506	73,762	91	641	121,000
South America (other) ¹	32,587	9,741	.....	29,792	9,838	81,958	1,552	3,256	.....	.....	3,256	6,512
Total South America	2,871,315	176,514	1,103	4,430,686	694,656	8,174,274	168,125	52,838	938,923	7,179	4,504	1,003,444
OCEANIA:												
Australia	448,662	66,413	37,555	1,399,796	117,185	2,069,611	443,163	44,112	3,600	.....	258	47,970
British Oceania	2,881	132	.....	27,847	.....	30,860	.....	.....	.....	.....	.....	.....
French Oceania	18,851	.....	.....	60	1,989	20,900	.....	.....	.....	.....	.....	.....
New Zealand	104,595	24,255	.....	77,779	12,111	218,740	15,477	43,413	.....	.....	819	44,232
Oceania (other) ¹	177,460	33,868	.....	33,911	42,683	287,922	32,747	14	.....	.....	.....	14
Total Oceania	752,449	124,668	37,555	1,539,393	173,968	2,628,033	491,387	87,539	3,600	.....	1,077	92,216

Table 9.—Origin and Destination of Commercial Cargo Through the Panama Canal From Pacific to Atlantic During Fiscal Year 1984 Segregated by Countries in Principal Trade Areas—Continued

[Long tons]

	To East Coast South America				To West Indies									
	Brazil	Colom- bia	Vene- zuela	South America (other) ¹	Total	Cuba	Haiti/ Domi- can Republic	Jamaica	Nether- lands West Indies	Puerto Rico	Trini- dad/ Tobago	West Indies (other) ¹	Total	
WEST COAST NORTH AMERICA:														
United States:														
Alaska												794,019	794,019	
Hawaii												692	692	
Mainland	75,809	13,853	179,959	9,445	279,066		5,712	1,804	121,126	95,509	93	176,015	400,259	
Total United States	75,809	13,853	179,959	9,445	279,066		5,712	1,804	121,126	95,509	93	176,015	400,259	
WEST COAST CANADA														
	345,007	683	78,785	1,794	426,269	163,708		39,215		23,518		149,401	375,842	
WEST COAST CENTRAL AMERICA:														
Costa Rica				42	42					1,968			1,968	
El Salvador				27	27				71,377		4,302		75,679	
Guatemala								10,334					10,334	
Honduras		640	638	2	1,280					1,596	19,643	2	21,241	
Mexico	53	432	463	1,282	2,230	3,872	85					333	4,290	
Nicaragua	55		1,579		1,709	10,344							10,344	
Panama		2,214	1,744		3,958	4,250				2,645		51,126	58,021	
Central America (other) ¹			9,986		9,986	9,992	228		9,986	12,015		117	22,352	
Bahloa, R. P. ²				5,010	5,010									
Total Central America	108	3,361	14,410	6,363	24,242	28,458	313	10,334	71,377	18,224	23,945	51,578	204,229	
WEST COAST SOUTH AMERICA:														
Chile	117	8,671	125,228	743	134,759		25,197		282	20,009		99	45,587	
Colombia		817,252	18,903		836,155				6	11			17	
Ecuador		43,677	52,651		96,328	52,154			196,543	1,295,041	3,476	407,125	1,954,339	
Peru	10,524	6,178	44,799	6,109	67,610	8,761			77,315	1,319,571		57,206	1,462,853	
South America (other) ¹		12,931	3,687	16	16,634	33,489				3,600			37,089	
Total South America	10,641	888,709	245,268	6,868	1,151,486	94,404	25,197		274,146	2,638,232	3,476	464,430	3,499,885	
OCEANIA:														
Australia			15,537		15,537	4,565	1,019	558	675	41,771	3,070	3,333	54,991	
French Oceania										6,647	1,254		7,901	
New Zealand			25,248	1,275	26,523	6,721	6,767	647	94	443	1,987	4,302	20,961	
Oceania (other) ¹			1,514		1,514		376	1,390	383	102,435	8,925	4,056	117,565	
Total Oceania			42,299	1,275	43,574	11,286	8,162	2,595	1,152	151,296	15,236	11,691	201,418	

Table 9.—Origin and Destination of Commercial Cargo Through the Panama Canal From Pacific to Atlantic During Fiscal Year 1984 Segregated by Countries in Principal Trade Areas—Continued

[Long tons]

	To Europe												
	Belgium	Denmark	Finland	France	Italy	Netherlands	Spain/Portugal	Sweden	United Kingdom	U.S.S.R.	Yugoslavia	West Germany	Europe (other) ¹
WEST COAST NORTH AMERICA:													
United States:													
Alaska					4,823							5,120	2,816
Hawaii							38		16,500				
Mainland	528,829	15,034		278,082	340,431	1,266,206	318,168	84,428	191,793	32,567	5,223	173,505	727,638
Total United States	528,829	15,034		278,082	345,254	1,266,206	318,206	84,428	208,293	32,567	5,223	178,625	730,454
WEST COAST CANADA	818,426	212,717	225,286	436,118	309,886	1,298,893	122,946	159,432	758,480	261,701	15,853	555,253	1,651,528
WEST COAST CENTRAL AMERICA:													
Costa Rica				950	26,778	4,170	477		4,931			14,667	12,142
El Salvador	36			751	2,125	2,805	4,277		824	2	2,286	57,383	13,820
Guatemala				658	9,047							1,931	6,255
Honduras					1,902		6,165					250	
Mexico	88			1,169	6,900	1,036	51,085	540	2,983	40		176,325	28,668
Nicaragua	3,875	2,000		11,069	2,938	9,744	1,313		1,680	721		24,928	11,742
Panama					57,300	1,000	4,764						1
Central America (other) ¹				1,408	8,125	2,100	4,199					16,097	5,005
Total Central America	3,999	2,000		16,005	115,115	20,855	72,280	540	10,418	763	2,286	291,581	77,633
WEST COAST SOUTH AMERICA:													
Chile	145,776	1,157	32,733	66,529	178,125	279,825	40,133	26,910	99,300		21,207	348,378	311,400
Colombia	15,233			581	13,587	19,422	339	113	2,906	11,785		111,766	19,889
Ecuador	37,268	4	82	2,556	42,456	15,512	5,132	357	5,081	25,980	9,062	59,464	117,101
Peru	247,801	1,541	1,451	57,969	74,141	48,689	62,693	8,757	86,844	42,409	30,363	119,842	180,851
South America (other) ¹	14,973	35	2	42,164	15,485	30,055	10,711	2,034	13,416	269,391	14,436	16,106	126,018
Total South America	461,051	2,737	34,268	169,799	323,794	393,503	119,008	38,171	207,547	349,565	75,068	655,556	755,259
OCEANIA:													
Australia	25,323				178	14,059	1,230		38,133			12,021	44,449
British Oceania		3,169				6,122			199,354				19,839
French Oceania	18,587			45,702	4,225		78						15,126
New Zealand	52,653		10,071		3,837	116,003	47,036	12,264	80,696			11,179	87,197
Oceania (other) ¹	5,652			11,996	1,662	19,437	850		58,166			575	37,648
Total Oceania	102,215	3,169		67,769	9,902	155,621	49,194	12,264	376,349			23,775	204,259
ASIA:													
Taiwan				65	17		28						290
Hong Kong				835			773						362
Indonesia									26				26
Japan	6,038		648	6,475	71	42,337	267		7,215			919	1,426
Philippine Islands						22,633							22,633
South Korea							12						62
U.S.S.R.										842		130	972
Asia (other) ¹				136			1,250		2,980			1,763	2,520
Total Asia	6,038		648	7,511	88	64,970	2,330		10,221	842		2,812	4,660
Grand total	1,920,558	235,657	260,202	975,284	1,104,039	3,200,048	683,964	294,835	1,571,308	645,438	98,430	1,707,602	3,423,793
Percent of Atlantic-Bound Cargo	3.1	0.4	0.4	1.6	1.8	5.1	1.1	0.5	2.5	1.0	0.2	2.7	5.5

See footnotes at end of table.

Table 9.—Origin and Destination of Commercial Cargo Through the Panama Canal From Pacific to Atlantic During Fiscal Year 1984 Segregated by Countries in Principal Trade Areas—Continued

	[Long tons]										Percent of total Atlantic- bound cargo
	To Asia (Middle East)		To Africa						Grand Total		
	Algeria	Egypt	Morocco	South Africa	Tunisia	Africa (other) ¹	Total				
WEST COAST NORTH AMERICA:											
United States:											
Alaska .....	.....	12,397	.....	.....	.....	.....	12,397	1,210,836	1.9		
Hawaii .....	.....	.....	.....	.....	.....	.....	.....	157,937	0.3		
Mainland	33,419	656,365	.....	27,985	61,428	58,370	810,048	8,746,146	14.1		
Total United States	33,419	668,762	.....	27,985	61,428	58,370	822,445	10,114,919	16.3		
WEST COAST CANADA	294,887	695,315	373,196	136,100	258,961	140,663	1,899,122	11,205,945	18.0		
WEST COAST CENTRAL AMERICA:											
Costa Rica .....	.....	.....	.....	.....	.....	.....	.....	211,287	0.3		
El Salvador	4,499	3,030	.....	.....	.....	2,569	5,599	327,846	0.5		
Guatemala .....	.....	.....	.....	.....	.....	.....	.....	205,122	0.3		
Honduras .....	.....	.....	.....	.....	.....	9,452	9,452	69,023	0.1		
Mexico	10,734	1,549	.....	.....	.....	.....	.....	55,679	1.1		
Nicaragua .....	.....	.....	.....	.....	.....	13,938	58,529	177,634	0.3		
Panama	48,348	.....	.....	.....	.....	.....	.....	417,518	0.7		
Central America (other) ¹	1,807	.....	.....	752	1,010	.....	1,010	98,900	0.2		
Balboa, R.P. ² .....	.....	.....	.....	.....	.....	.....	.....	6,065	0.0		
Total Central America	65,388	4,579	.....	.....	1,010	25,959	130,269	2,218,751	3.6		
WEST COAST SOUTH AMERICA:											
Chile .....	.....	10,219	1,049	.....	17,468	.....	28,736	3,054,729	4.9		
Colombia .....	.....	.....	12,000	.....	.....	.....	12,000	1,352,561	2.2		
Ecuador	24,243	.....	.....	.....	.....	.....	.....	7,772,551	12.5		
Peru	21,193	.....	.....	.....	.....	15,651	15,651	4,807,373	7.7		
South America (other) ¹ .....	.....	.....	.....	.....	.....	7,782	7,782	706,353	1.1		
Total South America	46,858	10,219	13,049	.....	17,468	23,433	64,169	17,693,567	28.4		
OCEANIA:											
Australia .....	.....	.....	.....	.....	.....	.....	.....	2,766,665	4.4		
British Oceania .....	.....	.....	.....	.....	.....	.....	.....	259,344	0.4		
French Oceania .....	.....	.....	.....	.....	.....	.....	.....	112,519	0.2		
New Zealand .....	.....	.....	.....	.....	.....	.....	.....	746,869	1.2		
Oceania (other) ¹ .....	.....	.....	.....	.....	.....	.....	.....	575,748	0.9		
Total Oceania .....	.....	.....	.....	.....	.....	.....	.....	4,461,145	7.2		

ASIA:									
China	.....	.....	.....	.....	.....	.....	.....	.....	1,484,633
Taiwan	.....	299	.....	.....	.....	.....	.....	.....	920,356
Hong Kong	.....	434	.....	.....	.....	.....	.....	.....	403,547
Indonesia	.....	.....	.....	.....	.....	.....	.....	.....	720,904
Japan	.....	770	435	.....	.....	.....	.....	.....	11,239
Philippine Islands	.....	.....	.....	.....	.....	.....	.....	.....	7871,800
Singapore	.....	.....	.....	.....	.....	.....	.....	.....	581,107
South Korea	.....	.....	.....	.....	.....	.....	.....	.....	269,361
Thailand	.....	.....	.....	.....	.....	.....	.....	.....	199
U.S.S.R.	.....	.....	.....	.....	.....	.....	.....	.....	1,052,651
Asia (other) ^a	.....	1,590	.....	.....	.....	.....	.....	.....	187,332
Total Asia		3,093	435						212,517
Grand total		148,758	399,943						9
Respect of Atlantic-Bound Caron									
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Also includes cargo not routed to permit segregation between definite countries.

²Includes both local and transshipped cargo.

**Table 10.—Important Commodity Shipments Over Principal Trade Routes
Atlantic to Pacific**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
EAST COAST UNITED STATES TO WEST COAST			
UNITED STATES:			
Canned and refrigerated foods, miscellaneous.....	1	1	1
Chemicals and petroleum chemicals	383	309	371
Caustic soda	188	127	154
Chemicals, unclassified	86	54	92
Petroleum chemicals, miscellaneous	109	128	125
Machinery and equipment, miscellaneous	3	8	.....
Manufactures of iron and steel	14	.....	7
Plates, sheets, and coils .....	.....	.....	7
Other and unclassified	14	.....	.....
Nitrates, phosphates, and potash.....	64	76	135
Ammonium compounds	15	49	.....
Phosphates.....	49	27	135
Ores and metals	137	30	90
Ore, alumina/bauxite.....	137	30	90
Petroleum and products	479	800	1,450
Crude oil .....	.....	.....	65
Fuel oil, residual.....	61	381	159
Gasoline	75	87	494
Jet fuel	32	45	160
Kerosene .....	.....	.....	11
Lubricating oil	251	186	346
Other and unclassified	60	101	215
Miscellaneous	514	413	334
All other and unclassified	514	413	334
Total.....	1,595	1,637	2,388
EAST COAST UNITED STATES TO WEST COAST CANADA:			
Nitrates, phosphates, and potash.....	937	569	601
Phosphates.....	937	569	601
Miscellaneous	9	27	.....
All other and unclassified	9	27	.....
Total.....	946	596	601
EAST COAST UNITED STATES TO WEST COAST CENTRAL			
AMERICA:			
Chemicals and petroleum chemicals, miscellaneous	10	20	13
Coal .....	.....	88	505
Grains.....	697	1,924	793
Corn	227	860	140
Sorghum	104	379	242
Soybeans	148	461	151
Wheat	210	219	241
Other and unclassified	8	5	19
Lumber and products, miscellaneous	6	2	5
Machinery and equipment, miscellaneous	2	3	3
Manufactures of iron and steel, miscellaneous .....	.....	5	3
Minerals, miscellaneous.....	13	1	4
Borax .....	.....	1	.....
Soda and sodium compounds	8	.....	4
Sulfur	5	.....	.....
Nitrates, phosphates, and potash.....	291	334	459
Ammonium compounds	76	117	25
Fertilizers, unclassified.....	85	121	214

**Table 10.—Important Commodity Shipments Over Principal Trade Routes
Atlantic to Pacific—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	<i>1984</i>	<i>1983</i>	<i>1982</i>
EAST COAST UNITED STATES TO WEST COAST CENTRAL AMERICA—Continued			
Nitrates, phosphates, and potash—Continued			
Phosphates.....	119	71	204
Potash.....	11	25	16
Ores and metals.....	.....	.....	2
Ores, miscellaneous.....	.....	.....	2
Other agricultural commodities.....	89	77	164
Oilseeds.....	26	55	136
Sugar.....	63	22	28
Petroleum and products.....	95	54	33
Diesel oil.....	.....	2	22
Gasoline.....	1	2	1
Fuel oil, residual.....	78	45	.....
Lubricating oil.....	10	5	10
Petroleum products, miscellaneous.....	6	.....	1
Miscellaneous.....	78	85	82
Flour, wheat.....	.....	2	3
Paper and paper products.....	23	30	18
Tallow.....	14	10	4
All other and unclassified.....	41	43	57
Total.....	1,281	2,593	2,067
EAST COAST UNITED STATES TO WEST COAST SOUTH AMERICA:			
Canned and refrigerated foods, miscellaneous.....	36	29	16
Chemicals and petroleum chemicals.....	183	186	171
Caustic soda.....	42	45	33
Chemicals, unclassified.....	128	134	125
Petroleum chemicals, miscellaneous.....	13	7	13
Coal and coke.....	161	227	100
Grains.....	2,806	3,100	3,231
Corn.....	347	619	824
Oats.....	3	7	15
Rice.....	85	20	7
Sorghum.....	22	122	75
Soybeans.....	137	162	146
Wheat.....	2,210	2,165	2,156
Other and unclassified.....	2	5	8
Lumber and products.....	7	15	15
Pulpwood.....	5	13	10
Other and unclassified.....	2	2	5
Machinery and equipment.....	66	67	139
Agricultural machinery and implements.....	18	19	29
Automobiles, trucks, accessories, and parts.....	19	22	55
Construction machinery and equipment.....	18	13	29
Electrical machinery and apparatus.....	8	6	13
Other and unclassified.....	3	7	13
Manufactures of iron and steel.....	30	30	104
Angles, shapes, and sections.....	3	9	6
Plates, sheets, and coils.....	6	4	8
Tubes, pipes, and fittings.....	12	7	16
Wire, bars, and rods.....	3	8	61
Other and unclassified.....	6	2	13
Minerals, miscellaneous.....	14	23	34
Soda and sodium compounds.....	14	18	27
Sulfur.....	.....	2	1
Other and unclassified.....	.....	3	6

**Table 10.—Important Commodity Shipments Over Principal Trade Routes
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
EAST COAST UNITED STATES TO WEST COAST			
SOUTH AMERICA—Continued			
Nitrates, phosphates, and potash	417	282	236
Ammonium compounds	22	8	17
Fertilizers, unclassified	230	150	109
Phosphates	147	111	96
Potash	18	13	14
Ores and metals	132	46	51
Ores, miscellaneous	5	7	14
Metals	127	39	37
Scrap	111	30	26
Tin, including tinplate	2	3	4
Other and unclassified	14	6	7
Other agricultural commodities	44	10	12
Oilseeds	1	5	10
Sugar	43	2	.....
Other and unclassified .....	.....	3	2
Petroleum and products	466	439	170
Diesel oil	183	130	53
Gasoline	142	134	14
Jet fuel	5	12	.....
Liquified natural gas	54	54	20
Lubricating oil	37	37	41
Residual fuel oil	38	29	40
Other and unclassified	7	43	2
Miscellaneous	665	670	721
Bricks and tile	3	3	6
Carbon black .....	.....	1	1
Clay, fire, and china	17	10	12
Flour, wheat	44	59	56
Groceries, miscellaneous .....	.....	7	15
Oil, coconut	3	4	2
Oil, vegetable	66	127	104
Paper and paper products	109	99	135
Resin	23	33	37
Rubber, manufactured	6	7	7
Tallow	43	49	34
Textiles	9	8	10
All other and unclassified	342	263	302
Total	5,027	5,124	5,000
EAST COAST UNITED STATES TO BALBOA, R.P.:			
Canned and refrigerated foods, miscellaneous	8	8	8
Grains	88	93	92
Corn	26	35	37
Wheat	60	48	55
Other and unclassified	2	10	.....
Machinery and equipment, miscellaneous	4	4	1
Ores and metals, miscellaneous	3	4	6
Petroleum and products	186	248	68
Diesel	25	.....	35
Fuel oil, residual	140	237	28
Other and unclassified	21	11	5
Miscellaneous	140	144	128
Oil, vegetable	14	14	18
All other and unclassified	126	130	110
Total	429	501	303

**Table 10.—Important Commodity Shipments Over Principal Trade Routes
Atlantic to Pacific—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
EAST COAST UNITED STATES TO HAWAII:			
Miscellaneous	29	53	52
All other and unclassified	29	53	52
Total	29	53	52
EAST COAST UNITED STATES TO OCEANIA:			
Chemicals and petroleum chemicals	705	570	427
Caustic soda	560	390	274
Chemicals, unclassified	145	172	117
Petroleum chemicals, miscellaneous .....	.....	8	36
Coal and coke .....	.....	30	21
Grains	32	116	27
Rice .....	.....	1	1
Soybeans	29	105	14
Other and unclassified	3	10	12
Lumber and products	9	.....	5
Pulpwood	9	.....	5
Machinery and equipment	13	12	22
Agricultural machinery and implements	8	2	10
Automobiles, trucks, accessories and parts	1	1	2
Construction machinery and equipment	2	6	7
Electrical machinery and apparatus .....	.....	1	1
Other and unclassified	2	2	2
Manufactures of iron and steel, miscellaneous .....	.....	3	3
Minerals, miscellaneous .....	.....	1	.....
Nitrates, phosphates, and potash	500	710	488
Ammonium compounds	13	8	21
Fertilizers, unclassified	122	184	104
Phosphates	348	513	358
Potash	17	5	5
Petroleum and products	265	293	159
Liquefied gas	66	21	25
Lubricating oil	16	8	30
Residual fuel oil	2	144	.....
Petroleum coke	177	101	68
Other and unclassified	4	19	36
Miscellaneous	612	574	800
Clay, fire and china .....	.....	11	24
Glass and glassware .....	.....	2	4
Oil, vegetable	4	3	39
Paper and paper products	27	35	25
Resin	12	19	9
Rubber, manufactured	1	1	4
Textiles .....	.....	.....	1
All other and unclassified	568	503	694
Total	2,136	2,309	1,952
EAST COAST UNITED STATES TO ASIA:			
Canned and refrigerated foods	177	189	215
Canned foods, miscellaneous	6	7	7
Refrigerated foods	171	182	208
Fruit	104	89	107
Meat	1	2	.....
Other and unclassified	66	91	101
Chemicals and petroleum chemicals	2,148	2,257	2,212
Caustic soda	49	56	2
Chemicals, unclassified	1,423	1,494	1,498

**Table 10.—Important Commodity Shipments Over Principal Trade Routes
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
EAST COAST UNITED STATES TO ASIA—Continued			
Chemicals and petroleum chemicals—Continued			
Petroleum chemicals, miscellaneous	676	707	712
Coal and coke	7,838	8,729	20,484
Grains	<u>20,962</u>	<u>29,326</u>	<u>28,896</u>
Barley .....	.....	104	.....
Corn	8,878	20,103	12,515
Rice .....	.....	25	50
Sorghum	1,195	834	1,650
Soybeans	6,148	6,264	6,074
Wheat	4,679	1,955	8,477
Other and unclassified	62	41	130
Lumber and products	<u>229</u>	<u>281</u>	<u>196</u>
Pulpwood	225	258	174
Other and unclassified	4	23	22
Machinery and equipment	<u>49</u>	<u>67</u>	<u>67</u>
Agricultural machinery and implements	4	6	11
Automobiles, trucks, accessories and parts	10	7	8
Construction machinery and equipment	10	23	23
Electrical machinery and apparatus	9	11	10
Other and unclassified	16	20	15
Manufactures of iron and steel	<u>103</u>	<u>96</u>	<u>162</u>
Angles, shapes, and sections	34	33	30
Plates, sheets, and coils	15	8	19
Tubes, pipes, and fittings	3	21	21
Wires, bars, and rods .....	.....	4	16
Other and unclassified	51	30	76
Minerals, miscellaneous .....	.....	1	1
Nitrates, phosphates, and potash	<u>5,207</u>	<u>4,961</u>	<u>3,981</u>
Ammonium compounds	93	47	40
Fertilizers, unclassified	329	401	232
Phosphates	4,775	4,477	3,659
Potash	10	36	50
Ores and metals	<u>1,988</u>	<u>1,810</u>	<u>1,015</u>
Ores, miscellaneous	7	25	12
Metals	<u>1,981</u>	<u>1,785</u>	<u>1,003</u>
Aluminum	26	26	2
Iron .....	.....	69	.....
Scrap	1,946	1,654	964
Tin, including tinplate	1	3	11
Other and unclassified	8	33	26
Other agricultural commodities	<u>24</u>	<u>59</u>	<u>201</u>
Beans, edible	22	34	30
Cotton, raw .....	.....	23	152
Other and unclassified	2	2	19
Petroleum and products	<u>598</u>	<u>1,234</u>	<u>709</u>
Gasoline	4	18	31
Liquefied gas	178	360	100
Lubricating oil	103	58	66
Petroleum coke	260	590	61
Diesel	34	24	136
Residual fuel oil .....	.....	145	217
Jet fuel .....	.....	29	31
Other and unclassified	19	10	67
Miscellaneous	<u>4,689</u>	<u>4,039</u>	<u>4,115</u>
Bricks and tile .....	.....	1	3
Carbon black .....	.....	.....	2

**Table 10.—Important Commodity Shipments Over Principal Trade Routes
Atlantic to Pacific—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	<i>1984</i>	<i>1983</i>	<i>1982</i>
EAST COAST UNITED STATES TO ASIA—Continued			
Miscellaneous—Continued			
Clay, fire and china	320	323	380
Fibers, plant	21	15	39
Flour, wheat	50	103	150
Groceries, miscellaneous	12	7	14
Marble and stone	16	11	12
Oil, vegetable	67	47	115
Paper and paper products	164	243	208
Resin	80	106	240
Rubber, manufactured	27	5	1
Tallow	2	6	17
Textiles	27	17	113
Tobacco and manufactures	7	45	53
All other and unclassified	3,896	3,110	2,768
Total	<u>44,012</u>	<u>53,049</u>	<u>62,254</u>
EAST COAST CANADA TO WEST COAST UNITED STATES:			
Petroleum and products .....	.....	.....	26
Gasoline .....	.....	.....	26
Miscellaneous	46	11	12
Pulpwood	1	2	5
All other and unclassified	45	9	7
Total	<u>46</u>	<u>11</u>	<u>38</u>
EAST COAST CANADA TO WEST COAST CENTRAL AMERICA:			
Manufactures of iron and steel, miscellaneous .....	.....	1	8
Miscellaneous	36	57	19
Paper and paper products	12	10	10
All other and unclassified	24	47	9
Total	<u>36</u>	<u>58</u>	<u>27</u>
EAST COAST CANADA TO WEST COAST SOUTH AMERICA:			
Grains	5	8	7
Barley	5	5	.....
Other and unclassified .....	.....	3	7
Machinery and equipment, miscellaneous	5	5	4
Manufactures of iron and steel, miscellaneous	4	17	20
Minerals, miscellaneous	12	13	13
Asbestos	12	13	13
Ores and metals	2	1	3
Metals	2	1	3
Tin, including tinplate .....	.....	.....	1
Other and unclassified	2	1	2
Miscellaneous	107	89	94
Paper and paper products	48	45	54
All other and unclassified	59	44	40
Total	<u>135</u>	<u>133</u>	<u>141</u>
EAST COAST CANADA TO OCEANIA:			
Miscellaneous	129	100	184
Paper and paper products	10	.....	17
All other and unclassified	119	100	167
Total	<u>129</u>	<u>100</u>	<u>184</u>

**Table 10.—Important Commodity Shipments Over Principal Trade Routes
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
EAST COAST CANADA TO ASIA:			
Canned and refrigerated foods	43	49	60
Refrigerated foods	43	49	60
Fish	25	31	39
Other and unclassified	18	18	21
Chemicals and petroleum chemicals, miscellaneous .....	.....	4	2
Grains	176	88	145
Barley .....	.....	.....	8
Corn .....	.....	.....	20
Soybeans	176	45	60
Wheat .....	.....	43	43
Other and unclassified .....	.....	.....	14
Lumber and products	228	146	120
Pulpwood	226	144	120
Other and unclassified	2	2	.....
Machinery and equipment, miscellaneous	1	.....	2
Manufactures of iron and steel, miscellaneous	42	58	37
Ores and metals	335	550	203
Ores, miscellaneous	117	108	74
Metals	218	442	129
Aluminum	40	142	119
Iron	9	87	10
Scrap	118	160	.....
Other and unclassified	51	53	.....
Miscellaneous	650	674	650
Paper and paper products	70	105	89
Resin	16	26	36
Slag .....	.....	15	19
All other and unclassified	564	528	506
Total	1,475	1,569	1,219
EAST COAST CENTRAL AMERICA TO WEST COAST UNITED STATES:			
Nitrates, phosphates, and potash	14	28	29
Amonium compounds	14	15	29
Fertilizers, unclassified .....	.....	13	.....
Petroleum and products .....	.....	.....	106
Residual fuel oil .....	.....	.....	106
Miscellaneous	14	19	.....
All other and unclassified	14	19	.....
Total	28	47	135
EAST COAST CENTRAL AMERICA TO WEST COAST CENTRAL AMERICA:			
Nitrates, phosphates, and potash	132	102	101
Ammonium compounds	25	.....	38
Phosphates .....	.....	.....	21
Fertilizers	107	102	42
Petroleum and products	4,092	3,247	2,199
Crude oil	931	1,378	875
Diesel oil	79	139	159
Liquefied gas	312	198	5
Fuel oil, residual	2,337	1,396	908
Gasoline .....	.....	.....	4
Other and unclassified	433	136	248

**Table 10.—Important Commodity Shipments Over Principal Trade Routes
Atlantic to Pacific—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
EAST COAST CENTRAL AMERICA TO WEST COAST CENTRAL AMERICA—Continued			
Miscellaneous	16	3	6
All other and unclassified	16	3	6
Total	4,240	3,352	2,306
EAST COAST CENTRAL AMERICA TO WEST COAST SOUTH AMERICA:			
Nitrates, phosphates, and potash	26	20	.....
Fertilizers, miscellaneous	26	20	.....
Other agricultural commodities	5	.....	10
Sugar	5	.....	10
Petroleum and products	70	5	17
Other and unclassified	70	5	17
Miscellaneous	106	39	42
All other and unclassified	106	39	42
Total	207	64	69
EAST COAST CENTRAL AMERICA TO BALBOA, R.P.:			
Petroleum and products	65	56	99
Diesel oil	4	33	62
Fuel, oil, residual	61	23	30
Other and unclassified .....	.....	.....	7
Total	65	56	99
EAST COAST CENTRAL AMERICA TO OCEANIA:			
Petroleum products	46	.....	.....
Miscellaneous	11	4	6
All other and unclassified	11	4	6
Total	57	4	6
EAST COAST CENTRAL AMERICA TO ASIA:			
Chemicals and petroleum chemicals	13	10	24
Nitrates, phosphates, and potash .....	.....	10	7
Phosphates .....	.....	.....	2
Fertilizers, miscellaneous .....	.....	10	5
Ores and metals, miscellaneous	43	61	73
Other agricultural commodities	2	11	10
Coffee	2	11	10
Petroleum and products .....	.....	56	.....
Crude petroleum .....	.....	56	.....
Miscellaneous	73	76	38
All other and unclassified	73	76	38
Total	131	224	152
EAST COAST SOUTH AMERICA TO WEST COAST UNITED STATES:			
Canned and refrigerated foods, miscellaneous	16	2	.....
Chemicals and petroleum chemicals	74	90	3
Lumber and products, miscellaneous	31	24	2
Manufactures of iron and steel, miscellaneous	171	181	54
Ores and metals	30	44	19
Ores	27	44	19
Alumina/bauxite	27	24	19
Other and unclassified .....	.....	20	.....
Metals, miscellaneous	3	.....	.....
Other agricultural commodities	6	11	5
Cocoa and cacao beans .....	.....	1	1

**Table 10.—Important Commodity Shipments Over Principal Trade Routes
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
EAST COAST SOUTH AMERICA TO WEST COAST UNITED STATES—Continued			
Other agricultural commodities—Continued			
Coffee	6	5	4
Sugar, raw .....	.....	5	.....
Petroleum and products	450	480	295
Asphalt	107	56	64
Crude oil	136	258	48
Diesel oil .....	.....	29	.....
Fuel oil, residual	62	50	.....
Gasoline	89	87	48
Jet fuel	32	.....	90
Kerosene .....	.....	.....	45
Liquefied gas	24	.....	.....
Miscellaneous	97	38	30
Paper and products	10	23	7
All other and unclassified	87	15	23
Total	875	870	408
EAST COAST SOUTH AMERICA TO WEST COAST CANADA:			
Manufactures of iron and steel	43	33	20
Miscellaneous	16	.....	17
All other and unclassified	16	.....	17
Total	59	33	37
EAST COAST SOUTH AMERICA TO WEST COAST CENTRAL AMERICA:			
Coal	103	79	79
Grains	205	.....	62
Sorghum .....	.....	.....	38
Soybeans	197	.....	19
Other and unclassified	8	.....	5
Nitrates, phosphates, and potash	23	55	4
Fertilizers, miscellaneous	23	55	4
Petroleum and products	594	669	818
Crude oil	594	667	754
Liquefied gas .....	.....	2	3
Other and unclassified .....	.....	.....	61
Other agricultural commodities	12	52	28
Sugar	12	52	28
Miscellaneous	48	7	23
All other and unclassified	48	7	23
Total	985	862	1,014
EAST COAST SOUTH AMERICA TO WEST COAST SOUTH AMERICA:			
Chemicals and petroleum chemicals, miscellaneous	18	12	25
Grains	7	2	.....
Oats	1	2	.....
Grains, miscellaneous	6	.....	.....
Minerals, miscellaneous .....	.....	.....	3
Salt .....	.....	.....	3
Nitrates, phosphates, and potash	57	62	22
Fertilizers, unclassified	57	62	22
Ores and metals	28	26	15
Ore, alumina/bauxite	18	14	9

**Table 10.—Important Commodity Shipments Over Principal Trade Routes
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
EAST COAST SOUTH AMERICA TO WEST COAST			
SOUTH AMERICA—Continued			
Ores and metals—Continued			
Metals, miscellaneous	10	12	6
Other agricultural commodities .....	.....	18	10
Sugar .....	.....	13	.....
Other and unclassified .....	.....	5	10
Petroleum and products	1,568	1,654	1,643
Crude oil	1,085	1,116	1,165
Diesel oil	102	168	198
Fuel oil, residual	26	112	104
Gasoline	224	180	96
Jet fuel	25	18	.....
Liquefied gas .....	.....	4	59
Lubricating oil	23	44	21
Other and unclassified	83	12	.....
Miscellaneous	151	82	127
All other and unclassified	151	82	127
Total	1,829	1,856	1,845
EAST COAST SOUTH AMERICA TO BALBOA, R.P.:			
Petroleum and products	42	74	46
Diesel oil	20	19	.....
Gasoline	22	8	16
Fuel oil, residual .....	.....	47	30
Miscellaneous	5	4	1
All other and unclassified	5	4	1
Total	47	78	47
EAST COAST SOUTH AMERICA TO HAWAII:			
Petroleum and products	59	.....	27
Jet fuel	26	.....	27
Kerosene	33	.....	.....
Nitrates, phosphates, and potash .....	.....	.....	11
Fertilizers, unclassified .....	.....	.....	11
Total	59	.....	38
EAST COAST SOUTH AMERICA TO OCEANIA:			
Petroleum and products	30	25	.....
Miscellaneous	3	47	9
All other and unclassified	3	47	9
Total	33	72	9
EAST COAST SOUTH AMERICA TO ASIA:			
Canned and refrigerated foods, miscellaneous	22	19	15
Chemicals and petroleum chemicals, miscellaneous	47	38	153
Lumber and products, miscellaneous	32	29	11
Manufactures of iron and steel, miscellaneous	88	143	28
Nitrates, phosphates, and potash .....	.....	2	19
Fertilizers, miscellaneous .....	.....	2	19
Ores and metals	290	323	284
Ores	121	103	107
Alumina/bauxite	49	16	23
Copper .....	.....	.....	13
Manganese	37	74	64
Other and unclassified	35	13	7
Metals, miscellaneous	169	220	177
Other agricultural commodities .....	.....	4	7
Cotton, raw .....	.....	2	5

**Table 10.—Important Commodity Shipments Over Principal Trade Routes
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
EAST COAST SOUTH AMERICA TO ASIA—Continued			
Other agricultural commodities—Continued			
Other and unclassified		2	2
Petroleum and products	1,031	1,093	1,660
Crude oil	892	846	1,360
Diesel oil		61	119
Gasoline		53	46
Jet fuel	92	30	87
Liquefied gas		8	.....
Residual fuel oil		48	38
Other and unclassified	47	47	10
Miscellaneous	27	32	31
Paper and products	16	.....	.....
All other and unclassified	11	32	31
Total	1,537	1,683	2,208
WEST INDIES TO WEST COAST UNITED STATES:			
Chemicals and petroleum chemicals, miscellaneous	99	.....	24
Minerals, miscellaneous	24	24	.....
Salt	24	24	.....
Ores and metals	253	284	159
Ore, alumina/bauxite	184	251	159
Metals, miscellaneous	69	33	.....
Petroleum and products	233	487	568
Asphalt	27	31	5
Liquefied gas	17	.....	.....
Fuel oil, residual	60	287	81
Gasoline .....	.....	58	355
Jet fuel	60	64	122
Lubricating oil	69	47	5
Miscellaneous	46	.....	1
All other and unclassified	46	.....	1
Total	655	795	752
WEST INDIES TO WEST COAST CANADA:			
Machinery and equipment .....	.....	.....	6
Electrical machinery and apparatus .....	.....	.....	6
Ores and metals .....	.....	4	6
Ore, alumina/bauxite .....	.....	4	6
Total .....	.....	4	12
WEST INDIES TO WEST COAST CENTRAL AMERICA:			
Chemicals and petroleum chemicals, miscellaneous	2	1	2
Other agricultural commodities	18	11	13
Sugar	18	11	13
Petroleum and products	187	265	675
Crude oil .....	.....	34	43
Diesel oil	81	97	267
Fuel oil, residual .....	.....	7	189
Gasoline	49	78	140
Lubricating oil	6	4	4
Other and unclassified	51	45	32
Miscellaneous	71	45	38
Cement	4	6	18
All other and unclassified	67	39	20
Total	278	322	728

**Table 10.—Important Commodity Shipments Over Principal Trade Routes
Atlantic to Pacific—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
WEST INDIES TO WEST COAST SOUTH AMERICA:			
Chemicals and petroleum chemicals, miscellaneous		3	5
Other agricultural commodities	53	47	.....
Minerals, miscellaneous	6	9	.....
Sulfur	6	9	.....
Ores and metals	12	.....	1
Ores, miscellaneous	7	.....	1
Metals, miscellaneous	5	.....	.....
Petroleum and products	733	975	1,453
Crude oil . . . . .	.....	45	52
Diesel oil	357	363	471
Fuel oil, residual	91	53	25
Gasoline	147	379	729
Jet fuel	5	28	36
Kerosene	39	26	40
Liquefied gas . . . . .	.....	7	8
Lubricating oil	79	56	77
Other and unclassified	15	18	15
Miscellaneous	16	27	20
All other and unclassified	16	27	20
Total	820	1,061	1,479
WEST INDIES TO BALBOA, R.P.:			
Petroleum and products	97	297	182
Diesel oil	28	110	59
Fuel oil, residual	5	117	102
Gasoline	22	65	15
Other and unclassified	42	5	6
Miscellaneous . . . . .	.....	.....	13
All other and unclassified . . . . .	.....	.....	13
Total	97	297	195
WEST INDIES TO HAWAII:			
Petroleum and products	268	323	388
Diesel oil . . . . .	.....	16	.....
Jet fuel	268	297	388
Residual fuel oil . . . . .	.....	10	.....
Total	268	323	388
WEST INDIES TO OCEANIA:			
Minerals, miscellaneous	38	44	97
Salt	38	44	97
Other agricultural commodities	41	.....	15
Sugar	41	.....	15
Petroleum and products	180	99	69
Diesel oil	46	16	4
Gasoline	78	48	6
Jet fuel	34	28	54
Lubricating oil	4	.....	5
Other and unclassified	18	7	.....
Miscellaneous	3	4	14
All other and unclassified	3	4	14
Total	262	147	195

**Table 10.—Important Commodity Shipments Over Principal Trade Routes
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
WEST INDIES TO ASIA:			
Canned and refrigerated foods	25	14	21
Fish, refrigerated	19	7	21
Other and unclassified	6	7	.....
Chemicals and petroleum chemicals, miscellaneous	38	49	17
Ores and metals	36	46	48
Ores	31	39	43
Alumina/bauxite	26	39	36
Other and unclassified	5	.....	7
Metals, miscellaneous	5	7	5
Other agricultural commodities	1,162	1,394	1,466
Sugar	1,161	1,393	1,464
Other and unclassified	1	1	2
Petroleum and products	70	439	374
Diesel oil .....	.....	.....	36
Liquefied gas .....	.....	86	.....
Gasoline .....	.....	78	7
Jet fuel .....	.....	71	246
Fuel oil, residual .....	.....	138	58
Lubricating oil	38	66	27
Petroleum products, miscellaneous	32	.....	.....
Miscellaneous	22	34	15
All other and unclassified	22	34	15
Total	1,353	1,976	1,941
EUROPE TO WEST COAST UNITED STATES:			
Canned and refrigerated foods, miscellaneous	46	39	36
Chemicals and petroleum chemicals	23	24	15
Caustic soda	5	2	7
Chemicals, unclassified	18	22	8
Lumber and products, miscellaneous	20	17	15
Machinery and equipment	193	150	152
Automobiles, trucks, accessories and parts	185	138	148
Construction machinery and equipment	5	4	1
Electrical machinery and apparatus	1	5	.....
Other and unclassified	2	3	3
Manufactures of iron and steel	780	610	732
Angles, shapes, and sections	53	34	88
Plates, sheets, and coils	469	379	308
Tubes, pipes, and fittings	33	14	28
Wires, bars, and rods	108	41	104
Other and unclassified	117	142	204
Nitrates, phosphates, and potash	346	244	317
Ammonium compounds	100	63	163
Fertilizers, unclassified	200	159	78
Nitrate of soda	42	22	76
Other and unclassified	4	.....	.....
Ores and metals	51	92	14
Ores, miscellaneous	12	20	1
Metals	39	72	13
Iron	29	63	1
Other and unclassified	10	9	12
Petroleum and products	53	23	94
Other and unclassified	53	23	94
Miscellaneous	1,428	953	833
Bricks and tile	10	8	12

**Table 10.—Important Commodity Shipments Over Principal Trade Routes
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
EUROPE TO WEST COAST UNITED STATES—Continued			
Miscellaneous—Continued			
Cement	92	35	.....
Glass and glassware	1	2	1
Liquors and wines	6	8	2
Marble and stone	9	2	6
Paper and paper products	201	57	42
Rubber, manufactured	1	.....	1
All other and unclassified	1,108	841	769
Total	<u>2,940</u>	<u>2,152</u>	<u>2,208</u>
EUROPE TO WEST COAST CANADA:			
Canned and refrigerated foods, miscellaneous	7	5	5
Machinery and equipment	13	14	9
Automobiles, trucks, accessories and parts	6	5	8
Other and unclassified	7	9	1
Manufactures of iron and steel	137	68	209
Angles, shapes, and sections	22	7	38
Plates, sheets, and coils	43	27	84
Tubes, pipes, and fittings	16	2	19
Wire, bars, and rods	26	6	25
Other and unclassified	30	26	43
Nitrates, phosphates, and potash	7	11	.....
Fertilizers, unclassified	7	.....	.....
Petroleum and products .....	.....	.....	6
Asphalt .....	.....	.....	6
Miscellaneous	283	164	174
Bricks and tile	1	.....	2
Liquors and wines	1	3	3
All other and unclassified	281	161	169
Total	<u>447</u>	<u>262</u>	<u>403</u>
EUROPE TO WEST COAST CENTRAL AMERICA:			
Canned and refrigerated foods, miscellaneous	4	1	.....
Chemicals and petroleum chemicals, miscellaneous	13	38	6
Grains	53	33	48
Corn	4	1	10
Wheat	30	25	34
Other and unclassified	19	7	4
Machinery and equipment	41	24	35
Automobiles, trucks, accessories and parts	9	10	11
Other and unclassified	32	14	24
Manufactures of iron and steel	46	64	55
Angles, shapes, and sections	11	11	3
Plates, sheets, and coils	15	21	26
Tubes, pipes, and fittings	2	.....	3
Wire, bars, and rods	14	15	17
Other and unclassified	4	17	6
Nitrates, phosphates, and potash	271	267	225
Ammonium compounds	20	35	56
Fertilizers, unclassified	240	204	162
Potash	11	28	7
Ores and metals	10	9	1
Metals, miscellaneous	10	9	1
Petroleum and products	239	3	.....
Other agricultural commodities	25	101	24

**Table 10.—Important Commodity Shipments Over Principal Trade Routes
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
EUROPE TO WEST COAST CENTRAL AMERICA—Continued			
Other agricultural commodities—Continued			
Sugar	25	101	24
Miscellaneous	139	125	100
Cement	1	.....	1
Glass and glassware .....	.....	1	2
Paper and paper products	14	4	1
All other and unclassified	124	120	96
Total	841	665	494
EUROPE TO WEST COAST SOUTH AMERICA:			
Canned and refrigerated foods	26	28	41
Canned foods	21	14	30
Milk	16	11	24
Other and unclassified	5	3	6
Refrigerated foods	5	14	11
Dairy products	3	3	7
Other and unclassified	2	11	4
Chemicals and petroleum chemicals	63	58	75
Caustic soda	4	4	6
Chemicals, unclassified	56	51	62
Petroleum chemicals, miscellaneous	3	3	7
Coal and coke	13	8	.....
Grains	47	83	28
Barley	5	1	14
Oats	3	16	2
Wheat	16	19	7
Rice	5	20	.....
Other and unclassified	18	27	5
Lumber and products	3	1	4
Pulpwood	1	.....	1
Other and unclassified	2	1	3
Machinery and equipment	93	109	183
Agricultural machinery and implements	17	20	29
Automobiles, trucks, accessories and parts	22	26	55
Construction machinery and equipment	27	35	54
Electrical machinery and apparatus	15	14	25
Other and unclassified	12	14	20
Manufactures of iron and steel	115	121	158
Angles, shapes, and sections	16	16	28
Plates, sheets, and coils	48	46	51
Tubes, pipes, and fittings	13	13	24
Wire, bars, and rods	19	14	24
Other and unclassified	19	32	31
Minerals, miscellaneous	22	37	38
Soda and sodium compounds	22	36	36
Other and unclassified .....	.....	1	2
Nitrates, phosphates, and potash	82	111	158
Ammonium compounds	16	24	36
Fertilizers, unclassified	48	47	87
Phosphates	7	20	18
Potash	10	19	17
Other and unclassified	1	1	.....
Ores and metals	21	16	36
Ores, miscellaneous	4	1	11
Metals	17	15	25

**Table 10.—Important Commodity Shipments Over Principal Trade Routes
Atlantic to Pacific—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
EUROPE TO WEST COAST SOUTH AMERICA—Continued			
Ores and metals—Continued			
Iron	1	3	3
Tin, including tinplate	8	5	14
Other and unclassified	8	7	8
Other agricultural commodities	52	75	44
Sugar	52	69	34
Other and unclassified .....	.....	6	10
Petroleum and products	64	131	81
Diesel oil	42	53	26
Gasoline	4	23	5
Liquefied gas .....	.....	27	17
Residual fuel oil	10	20	6
Other and unclassified	8	8	27
Miscellaneous	478	414	462
Ammunition and explosives	1	2	1
Bricks and tile	5	6	17
Cement	3	2	6
Flour, wheat	41	29	15
Glass and glassware	6	6	20
Groceries, miscellaneous	3	9	3
Liquors and wines	2	7	12
Marble and stone .....	.....	.....	1
Oil, vegetable	1	.....	2
Paper and paper products	33	39	55
Resin	6	8	8
Rubber, manufactured	3	5	4
Textiles	7	5	8
Wax, paraffin	7	4	5
All other and unclassified	360	292	305
Total	1,079	1,192	1,308
EUROPE TO OCEANIA:			
Canned and refrigerated foods, miscellaneous	15	14	14
Chemicals and petroleum chemicals	164	111	117
Caustic soda	45	30	29
Chemicals, unclassified	108	67	79
Petroleum chemicals, miscellaneous	11	14	9
Lumber and products, miscellaneous	28	4	1
Machinery and equipment	24	31	36
Agricultural machinery and implements	1	1	3
Automobiles, trucks, accessories and parts	14	11	21
Construction machinery and equipment	3	12	8
Electrical machinery and apparatus	2	3	2
Other and unclassified	4	4	2
Manufactures of iron and steel	28	29	37
Angles, shapes, and sections	4	5	5
Plates, sheets, and coils	7	7	8
Tubes, pipes, and fittings	7	3	7
Wire, bars, and rods	6	6	10
Other and unclassified	4	8	7
Minerals, miscellaneous	10	7	6
Salt	9	6	5
Soda and sodium compounds	1	1	1
Nitrates, phosphates, and potash	69	51	17
Ammonium compounds	13	1	2
Fertilizers, unclassified	19	32	15

**Table 10.—Important Commodity Shipments Over Principal Trade Routes
Atlantic to Pacific—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
EUROPE TO OCEANIA—Continued			
Nitrates, phosphates, and potash—Continued			
Phosphates.....		17	.....
Potash.....	37	1	.....
Ores and metals, miscellaneous.....	2	.....	1
Other agricultural commodities, miscellaneous.....	6	9	9
Petroleum and products.....	60	5	10
Lubricating oil.....	7	2	8
Other and unclassified.....	53	3	2
Miscellaneous.....	485	505	580
Bricks and tile.....	2	1	4
Cement.....	18	16	30
Flour, wheat.....	12	9	9
Glass and glassware.....	2	2	1
Groceries, miscellaneous.....	4	2	7
Liquors and wines.....	2	9	3
Oil, vegetable.....	26	16	11
Paper and paper products.....	9	6	7
Rubber, manufactured.....	.....	1	.....
Textiles.....	.....	1	1
All other and unclassified.....	410	442	507
Total.....	891	766	828
EUROPE TO ASIA:			
Canned and refrigerated foods.....	14	13	14
Refrigerated foods, miscellaneous.....	14	13	14
Chemicals and petroleum chemicals.....	251	283	182
Caustic soda.....	19	13	8
Chemicals, unclassified.....	219	234	151
Petroleum chemicals, miscellaneous.....	13	36	23
Coal and coke.....	.....	.....	59
Lumber and products, miscellaneous.....	2	.....	19
Machinery and equipment.....	7	9	13
Automobiles, trucks, accessories and parts.....	7	9	13
Ores and metals, miscellaneous.....	48	.....	13
Petroleum and products, miscellaneous.....	54	53	15
Miscellaneous.....	67	104	31
Paper and paper products.....	.....	17	.....
All other and unclassified.....	67	87	31
Total.....	443	462	346
AFRICA TO WEST COAST UNITED STATES:			
Canned and refrigerated foods, miscellaneous.....	.....	.....	1
Manufactures of iron and steel, miscellaneous.....	88	76	115
Ores and metals.....	40	22	91
Metals.....	14	11	6
Other and unclassified.....	14	11	6
Ores.....	26	11	85
Manganese ore.....	21	3	50
Lead ore.....	.....	8	33
Other and unclassified.....	5	.....	2
Petroleum and products.....	143	177	181
Crude oil.....	59	147	47
Gasoline.....	28	30	27
Other and unclassified.....	56	.....	107

**Table 10.—Important Commodity Shipments Over Principal Trade Routes
Atlantic to Pacific—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
AFRICA TO WEST COAST UNITED STATES—Continued			
Miscellaneous	21	6	11
All other and unclassified	21	6	11
Total	292	281	399
AFRICA TO WEST COAST CANADA:			
Manufactures of iron and steel, miscellaneous		4	40
Miscellaneous	4	7	31
Phosphates			29
All other and unclassified	4	7	2
Total	4	11	71
AFRICA TO WEST COAST CENTRAL AMERICA:			
Canned and refrigerated foods	1		
Nitrates, phosphates, and potash		32	21
Fertilizer, miscellaneous		12	
Phosphates		20	21
Miscellaneous	3		
All other and unclassified	3		
Total	4	32	21
AFRICA TO WEST COAST SOUTH AMERICA:			
Manufactures of iron and steel, miscellaneous		6	27
Miscellaneous	3	5	13
All other and unclassified	3	5	13
Total	3	11	40
AFRICA TO ASIA:			
Canned and refrigerated foods	68	61	59
Fish, refrigerated	68	59	52
Other and unclassified		2	7
Nitrates, phosphates, and potash			6
Phosphates			6
Miscellaneous			9
All other and unclassified			9
Total	68	61	74
ASIA (MIDDLE EAST) TO WEST COAST UNITED STATES:			
Miscellaneous	61	61	13
Chemicals, miscellaneous		39	
Liquefied gas	28		
All other and unclassified	33	22	13
Total	61	61	13
ASIA (MIDDLE EAST) TO WEST COAST SOUTH AMERICA:			
Miscellaneous		2	4
All other and unclassified		2	4
Total		2	4

**Table 11.—Important Commodity Shipments Over Principal Trade Routes
Pacific to Atlantic**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
WEST COAST UNITED STATES TO EAST COAST			
UNITED STATES:			
Canned and refrigerated foods, miscellaneous.....	1	8	1
Chemicals and petroleum chemicals	93	94	85
Chemicals, unclassified	90	78	78
Petroleum chemicals, miscellaneous	3	16	7
Lumber and products	59	34	5
Minerals, miscellaneous.....	105	87	139
Soda and sodium compounds	68	87	139
Salt	37	.....	.....
Petroleum and products	2,553	6,663	32,369
Crude oil	1,816	5,923	31,249
Diesel oil	327	190	269
Fuel oil, residual.....	151	63	284
Gasoline	117	115	88
Lubricating oil	96	102	131
Other and unclassified	46	270	348
Miscellaneous	428	279	266
All other and unclassified	428	279	266
Total	3,239	7,165	32,865
WEST COAST UNITED STATES TO EAST COAST CANADA:			
Petroleum and products	327	26	.....
Diesel oil	193	.....	.....
Other and unclassified	134	26	.....
Miscellaneous	28	8	10
All other and unclassified	28	8	10
Total	355	34	10
WEST COAST UNITED STATES TO EAST COAST SOUTH AMERICA:			
Canned and refrigerated foods	8	15	26
Canned foods, miscellaneous	5	5	14
Refrigerated foods	3	10	12
Fruit, excluding bananas.....	3	9	12
Other and unclassified .....	.....	1	.....
Chemicals and petroleum chemicals, miscellaneous	8	3	3
Coke, coal type.....	27	.....	10
Grains	60	21	42
Wheat	58	18	23
Barley .....	.....	.....	17
Other and unclassified	2	3	2
Lumber and products	31	35	41
Pulpwood.....	31	30	34
Other and unclassified .....	.....	5	7
Machinery and equipment, miscellaneous	3	5	5
Manufactures of iron and steel, miscellaneous	1	2	1
Minerals, miscellaneous	45	83	112
Borax	3	5	7
Salt	6	20	15
Soda and sodium compounds	28	58	85
Infusorial earth	8	.....	5
Nitrates, phosphates, and potash.....	1	7	.....
Fertilizers, unclassified.....	.....	1	.....
Potash .....	.....	6	.....
Ammonium compounds	1	.....	.....
Ores and metals	1	1	2
Metals, miscellaneous	1	1	2

**Table 11.—Important Commodity Shipments Over Principal Trade Routes
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
WEST COAST UNITED STATES TO EAST COAST SOUTH AMERICA:			
Other agricultural commodities	15	9	23
Beans, edible	11	2	9
Peas, dry	4	7	14
Petroleum and products .....	.....	1	21
Petroleum coke .....	.....	.....	21
Other and unclassified .....	.....	1	.....
Miscellaneous	80	46	52
Clay, fire and china	8	5	4
Flour, wheat	1	.....	.....
Oil, vegetable	6	.....	5
Paper and paper products	17	4	4
All other and unclassified	48	37	39
Total	279	228	338
WEST COAST UNITED STATES TO WEST INDIES:			
Canned and refrigerated foods, miscellaneous	1	5	9
Grains	95	77	84
Rice	95	77	84
Petroleum and products	1,091	1,316	3,575
Crude oil .....	.....	287	3,255
Diesel oil	89	100	.....
Gasoline .....	.....	28	.....
Residual fuel oil	918	800	320
Other and unclassified	84	101	.....
Miscellaneous	7	4	8
All other and unclassified	7	4	8
Total	1,194	1,402	3,676
WEST COAST UNITED STATES TO EUROPE:			
Canned and refrigerated foods	71	123	104
Canned foods, miscellaneous	1	3	.....
Refrigerated foods	70	120	104
Fish	4	5	19
Fruit, excluding bananas	10	40	20
Other and unclassified	56	75	65
Chemicals and petroleum chemicals, miscellaneous	65	95	72
Coal and coke	102	601	516
Grains	344	137	597
Barley .....	.....	.....	126
Rice	298	5	110
Wheat	46	132	358
Other and unclassified .....	.....	.....	3
Lumber and products	566	636	553
Boards and planks	222	222	175
Plywood, veneers, composition board	75	134	76
Pulpwood	217	257	272
Other and unclassified	52	23	30
Machinery and equipment, miscellaneous .....	.....	.....	2
Manufactures of iron and steel, miscellaneous	2	.....	6
Minerals, miscellaneous	434	408	418
Borax	411	385	386
Salt .....	.....	.....	26
Sulfur	23	23	6
Nitrates, phosphates, and potash	1	1	35
Ammonium compounds .....	.....	.....	4
Fertilizers, unclassified .....	.....	.....	28

**Table 11.—Important Commodity Shipments Over Principal Trade Routes
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
WEST COAST UNITED STATES TO EUROPE:			
Nitrates, phosphates, and potash—Continued			
Fishmeal.....	1	1	3
Ores and metals.....	81	112	56
Ores.....	43	68	49
Copper.....		50	38
Lead.....		4	3
Other and unclassified.....	43	14	8
Metals.....	38	44	7
Copper.....	30	41	1
Lead.....		1	6
Tin, including tinplate.....		2	
Other and unclassified.....	8		
Other agricultural commodities.....	102	44	39
Beans, edible.....	1		1
Cotton, raw.....	41	40	9
Molasses.....	43		24
Oilseeds.....	17	4	5
Petroleum and products.....	1,538	1,884	1,841
Petroleum coke.....	1,538	1,512	1,198
Residual fuel oil.....		195	460
Other and unclassified.....		177	183
Miscellaneous.....	669	700	806
Carbon black.....			79
Clay, fire and china.....	16	21	5
Groceries, miscellaneous.....	2	1	7
Oil, vegetable.....	6	7	6
Paper and paper products.....	55	56	51
Seeds, excluding oilseeds.....			3
Slag.....			5
All other and unclassified.....	590	615	650
Total.....	3,975	4,741	5,045
WEST COAST UNITED STATES TO AFRICA:			
Chemicals and petroleum chemicals, miscellaneous.....		1	1
Coke, coal type.....		53	
Grains.....	636	506	1,673
Wheat.....	583	485	1,673
Other and unclassified.....	53	21	
Lumber and products, miscellaneous.....	15	2	34
Machinery and equipment, miscellaneous.....			2
Minerals, miscellaneous.....	128	139	72
Sulfur.....	101	139	60
Other and unclassified.....	27		12
Petroleum and products, miscellaneous.....	28		28
Miscellaneous.....	15	24	70
Flour, wheat.....		20	29
Oil, vegetable.....	10		18
All other and unclassified.....	5	4	23
Total.....	822	725	1,880
WEST COAST CANADA TO EAST COAST UNITED STATES:			
Chemicals and petroleum chemicals, miscellaneous.....	181	154	149
Lumber and products.....	1,196	1,080	686
Boards and planks.....	1,188	1,000	648
Other and unclassified.....	8	80	38

**Table 11.—Important Commodity Shipments Over Principal Trade Routes
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
WEST COAST CANADA TO EAST COAST UNITED STATES:			
Minerals, miscellaneous	49	11	.....
Sulfur	49	11	.....
Nitrates, phosphates, potash	124	133	77
Ammonium compounds .....	.....	14	.....
Fertilizers, miscellaneous .....	.....	29	.....
Potash	124	90	77
Ores and metals .....	.....	11	7
Other and unclassified .....	.....	11	7
Petroleum and products	85	213	.....
Crude oil .....	.....	108	.....
Others and unclassified	85	105	.....
Miscellaneous	11	29	13
All other and unclassified	11	29	13
Total	1,646	1,631	932
WEST COAST CANADA TO EAST COAST SOUTH AMERICA:			
Coal .....	.....	30	80
Grains	51	21	21
Barley .....	.....	21	21
Wheat	51	.....	.....
Lumber and products	56	32	27
Pulpwood	56	29	27
Other and unclassified .....	.....	3	.....
Minerals, miscellaneous	256	120	327
Sulfur	256	120	326
Other and unclassified .....	.....	.....	1
Nitrates, phosphates, and potash	34	20	115
Fertilizers, unclassified .....	.....	1	1
Potash	32	19	111
Other and unclassified	2	.....	3
Ores and metals, miscellaneous	2	.....	14
Miscellaneous	27	35	20
Paper and paper products	23	22	10
All other and unclassified	4	13	10
Total	426	258	604
WEST COAST CANADA TO WEST INDIES:			
Grains .....	.....	.....	14
Barley .....	.....	.....	14
Chemicals and petroleum chemicals, miscellaneous	2	36	.....
Lumber and products	31	29	29
Boards and planks	31	29	29
Nitrates, phosphates, and potash	37	17	.....
Minerals, miscellaneous	121	69	165
Sulfur	121	69	165
Other agricultural commodities	31	.....	.....
Peas, dry	31	.....	.....
Petroleum and products	150	52	.....
Other and unclassified	150	52	.....
Miscellaneous	4	2	9
Paper and paper products	4	2	6
All other and unclassified .....	.....	.....	3
Total	376	205	217

**Table 11.—Important Commodity Shipments Over Principal Trade Routes
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
WEST COAST CANADA TO EUROPE:			
Canned and refrigerated foods, miscellaneous	34	31	39
Chemicals and petroleum chemicals, miscellaneous	331	173	62
Coal and coke	1,446	766	520
Grains	877	665	1,431
Barley	483	272	557
Wheat	278	361	751
Other and unclassified	116	32	123
Lumber and products	2,304	2,037	2,292
Boards and planks	1,064	886	1,092
Plywood, veneers, composition board	171	175	165
Pulpwood	923	875	993
Other and unclassified	146	101	41
Machinery and equipment .....	.....	3	1
Machinery and equipment, miscellaneous .....	.....	3	1
Minerals, miscellaneous	1,021	677	794
Asbestos	3	2	3
Sulfur	1,018	675	791
Nitrates, phosphates, and potash	1	18	25
Fertilizers, unclassified .....	.....	.....	22
Potash .....	.....	14	.....
Fishmeal	1	4	3
Ores and metals	55	87	126
Ores	17	30	72
Copper	6	12	51
Zinc	4	6	7
Other and unclassified	7	12	14
Metals	38	57	54
Aluminum	1	.....	2
Copper .....	.....	1	6
Lead	17	37	18
Zinc	19	15	28
Other and unclassified	1	4	.....
Other agricultural commodities	294	57	30
Oilseeds	291	51	26
Other and unclassified	3	6	4
Petroleum and products	118	86	115
Petroleum coke	103	84	115
Other and unclassified	15	2	.....
Miscellaneous	346	610	708
Paper and paper products	157	357	428
All other and unclassified	189	253	280
Total	6,827	5,210	6,143
WEST COAST CANADA TO AFRICA:			
Chemicals and petroleum chemicals, miscellaneous .....	.....	26	.....
Coal and coke	35	50	.....
Grains	659	53	103
Wheat	659	53	103
Lumber and products	299	312	153
Boards and planks	261	265	94
Pulpwood	29	18	41
Other and unclassified	9	29	18
Minerals, miscellaneous	855	786	1,045
Sulfur	855	786	1,045

**Table 11.—Important Commodity Shipments Over Principal Trade Routes
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
WEST COAST CANADA TO AFRICA—Continued			
Nitrates, phosphates, and potash	13	7	.....
Potash	13	7	.....
Miscellaneous	38	2	7
All other and unclassified	38	2	7
Total	1,899	1,236	1,308
WEST COAST CANADA TO ASIA (MIDDLE EAST):			
Grains .....	.....	.....	26
Barley .....	.....	.....	26
Lumber and products .....	.....	2	4
Other and unclassified .....	.....	2	4
Minerals, miscellaneous .....	.....	123	153
Sulfur .....	.....	123	153
Miscellaneous .....	.....	.....	3
Other and unclassified .....	.....	.....	3
Total .....	.....	125	186
WEST COAST CENTRAL AMERICA TO EAST COAST UNITED STATES:			
Canned and refrigerated foods	114	162	98
Refrigerated foods	114	162	98
Bananas	114	161	98
Other and unclassified .....	.....	1	.....
Minerals, miscellaneous	203	150	272
Salt	194	150	272
Sulfur	9	.....	.....
Nitrates, phosphates, and potash	4	9	5
Fishmeal	4	9	5
Ores and metals, miscellaneous .....	.....	23	18
Other agricultural commodities	666	548	328
Coffee	33	43	31
Molasses	215	189	69
Sugar	416	316	222
Other and unclassified	2	.....	6
Petroleum and products	6	5	26
Miscellaneous	6	12	21
Oil, vegetable .....	.....	7	9
All other and unclassified	6	5	12
Total	999	909	768
WEST COAST CENTRAL AMERICA TO EAST COAST CENTRAL AMERICA:			
Grains, miscellaneous	43	21	22
Nitrates, phosphates, and potash	85	143	69
Phosphates	85	143	69
Petroleum and products	17	.....	52
Crude oil .....	.....	.....	27
Gasoline	1	.....	.....
Diesel oil	16	.....	25
Miscellaneous	14	2	8
All other and unclassified	14	2	8
Total	159	166	151

**Table 11.—Important Commodity Shipments Over Principal Trade Routes
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
WEST COAST CENTRAL AMERICA TO WEST INDIES:			
Canned and refrigerated foods	24	63	79
Refrigerated foods, miscellaneous	24	63	79
Lumber and products	22	41	33
Boards and planks	19	41	31
Other and unclassified	3	.....	2
Other agricultural commodities	19	43	4
Molasses .....	.....	29	.....
Other and unclassified	19	14	4
Petroleum and products, miscellaneous	123	.....	13
Miscellaneous	16	21	12
All other and unclassified	16	21	12
Total	204	168	141
WEST COAST CENTRAL AMERICA TO EUROPE:			
Canned and refrigerated foods	99	120	126
Refrigerated foods	99	120	126
Bananas	76	101	93
Other and unclassified	23	19	33
Chemicals and petroleum chemicals, miscellaneous .....	.....	20	.....
Grains, miscellaneous	13	.....	1
Lumber and products	9	16	15
Boards and planks	9	15	14
Other and unclassified .....	.....	1	1
Manufactures of iron and steel, miscellaneous	15	15	35
Nitrates, phosphates, and potash	4	1	12
Fertilizers, unclassified	4	.....	9
Fishmeal .....	.....	1	2
Other and unclassified .....	.....	.....	1
Ores and metals, miscellaneous	205	183	172
Ores	201	153	151
Copper	196	125	151
Other and unclassified	5	28	.....
Metals	4	30	21
Copper .....	.....	25	21
Other and unclassified	4	5	.....
Other agricultural commodities	169	257	421
Beans, edible	5	4	.....
Cocoa and cocoa beans	6	.....	.....
Coffee	79	77	76
Cotton, raw	46	45	47
Molasses	5	86	241
Oilseeds	14	6	24
Peas, dry	7	17	28
Sugar	7	22	5
Miscellaneous	99	124	117
Seeds, excluding oilseeds	3	.....	1
Textiles .....	.....	5	.....
Tobacco and manufactures	1	1	1
All other and unclassified	95	118	115
Total	613	736	898
WEST COAST CENTRAL AMERICA TO AFRICA:			
Canned and refrigerated foods .....	.....	1	10
Bananas .....	.....	.....	10
Other and unclassified .....	.....	1	.....
Lumber and products, miscellaneous	9	2	7

**Table 11.—Important Commodity Shipments Over Principal Trade Routes
Pacific to Atlantic—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	<i>1984</i>	<i>1983</i>	<i>1982</i>
WEST COAST CENTRAL AMERICA TO AFRICA—Continued			
Manufactures of iron and steel	54	64	8
Other agricultural commodities	66	35	14
Coffee	11	19	1
Peas, dried .....	.....	6	.....
Sugar, raw	55	.....	.....
Other and unclassified .....	.....	10	13
Miscellaneous	1	2	11
All other and unclassified	1	2	11
Total	130	104	50
WEST COAST SOUTH AMERICA TO EAST COAST UNITED STATES:			
Canned and refrigerated foods	561	504	513
Canned foods, miscellaneous	24	10	21
Refrigerated foods	537	494	492
Bananas	305	315	354
Fish	27	23	18
Fruit, excluding bananas	194	141	116
Refrigerated, miscellaneous	11	15	4
Chemicals and petroleum chemicals, miscellaneous	28	24	66
Lumber and products	28	19	23
Boards and planks	11	8	8
Other and unclassified	17	11	15
Manufactures of iron and steel, miscellaneous	5	3	5
Minerals, miscellaneous	472	382	198
Salt	460	377	197
Soda and sodium compounds	11	5	.....
Other and unclassified	1	.....	1
Nitrates, phosphates, and potash	135	166	154
Fishmeal	33	42	44
Nitrate of soda	102	120	105
Potash .....	.....	4	5
Ores and metals	555	742	1,015
Ores	232	319	727
Copper	11	10	12
Iron	19	.....	161
Lead	36	25	9
Tin	9	1	2
Zinc	20	11	12
Other and unclassified	137	272	531
Metals	323	423	288
Copper	267	367	233
Lead	14	20	14
Zinc	30	33	29
Other and unclassified	12	3	12
Other agricultural commodities	588	596	441
Beans, edible .....	.....	1	2
Cocoa and cacao beans	27	19	38
Coffee	175	124	128
Cotton, raw	5	3	7
Molasses	139	301	146
Sugar	242	148	120
Petroleum and products	5,603	5,076	4,055
Crude oil	3,567	3,724	2,981
Fuel oil, residual	1,725	1,224	943
Gasoline	113	20	15

**Table 11.—Important Commodity Shipments Over Principal Trade Routes
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
WEST COAST SOUTH AMERICA TO EAST COAST UNITED STATES—Continued			
Petroleum and products—Continued			
Other and unclassified	198	108	116
Miscellaneous	199	126	131
Fibers, plant	5	6	8
Groceries, miscellaneous	7	4	7
Oil, fish .....	.....	.....	18
Paper and products	9	3	2
Textiles	11	10	9
All other and unclassified	167	106	89
Total	8,174	7,638	6,601
WEST COAST SOUTH AMERICA TO EAST COAST CANADA:			
Nitrates, phosphates, and potash	4	10	1
Nitrate of soda	4	10	1
Ores and metals, miscellaneous	76	52	61
Other agricultural commodities	32	40	10
Molasses	19	.....	10
Sugar	12	39	.....
Other and unclassified	1	1	.....
Minerals, miscellaneous .....	.....	30	75
Salt .....	.....	30	75
Petroleum and products	52	55	.....
Crude oil	52	55	.....
Miscellaneous	4	1	4
All other and unclassified	4	1	4
Total	168	188	151
WEST COAST SOUTH AMERICA TO EAST COAST CENTRAL AMERICA:			
Manufactures of iron and steel, miscellaneous	5	21	.....
Nitrates, phosphates, and potash .....	.....	.....	11
Nitrate of soda .....	.....	.....	11
Ores and metals	52	24	38
Metals, miscellaneous	5	11	22
Ores, miscellaneous	47	13	16
Other agricultural commodities	2	12	.....
Sugar .....	.....	12	.....
Other and unclassified	2	.....	.....
Petroleum and products	939	821	228
Crude oil	939	821	228
Miscellaneous	1	12	18
Paper and paper products .....	.....	2	2
All other and unclassified	1	10	16
Total	999	890	295
WEST COAST SOUTH AMERICA TO EAST COAST SOUTH AMERICA:			
Canned and refrigerated foods	5	5	9
Fruit refrigerated, excluding bananas .....	.....	3	5
Other and unclassified	5	2	4
Chemicals and petroleum chemicals, miscellaneous	13	3	11
Lumber and products, miscellaneous	75	44	109
Manufactures of iron and steel, miscellaneous	1	1	.....

**Table 11.—Important Commodity Shipments Over Principal Trade Routes
Pacific to Atlantic—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
WEST COAST SOUTH AMERICA TO EAST COAST SOUTH AMERICA—Continued			
Nitrates, phosphates, and potash .....	.....	.....	1
Ores and metals, miscellaneous	51	54	84
Other agricultural commodities	40	27	122
Beans, edible	23	26	34
Sugar	16	.....	87
Other and unclassified	1	1	1
Petroleum and products	922	1,537	1,202
Crude oil	907	1,528	1,074
Other and unclassified	15	9	128
Miscellaneous	44	31	89
Oil, fish	4	.....	.....
Oil, vegetable	6	3	27
Paper and paper products	15	9	13
All other and unclassified	19	19	49
Total	1,151	1,702	1,627
WEST COAST SOUTH AMERICA TO WEST INDIES:			
Canned and refrigerated foods	44	56	44
Canned foods, miscellaneous	4	.....	.....
Fish, refrigerated	40	55	44
Other and unclassified .....	.....	1	.....
Grains, miscellaneous	2	12	13
Lumber and products	26	27	21
Boards and planks	22	27	17
Other and unclassified	4	.....	4
Nitrates, phosphates, and potash	9	12	24
Fishmeal	9	12	24
Ores and metals .....	.....	.....	13
Ores, miscellaneous .....	.....	.....	11
Metals, miscellaneous .....	.....	.....	2
Other agricultural commodities .....	.....	18	15
Molasses .....	.....	.....	13
Sugar .....	.....	16	.....
Other and unclassified .....	.....	2	2
Petroleum and products	3,392	2,059	1,062
Crude oil	2,624	1,650	948
Fuel oil, residual	730	343	82
Other and unclassified	38	66	32
Miscellaneous	27	27	2
All other and unclassified	27	27	2
Total	3,500	2,211	1,194
WEST COAST SOUTH AMERICA TO EUROPE:			
Canned and refrigerated foods	699	723	1,009
Canned foods, miscellaneous	24	25	27
Refrigerated foods	675	698	982
Bananas	238	278	342
Fish, refrigerated	297	293	474
Fruit, excluding bananas	139	116	141
Other and unclassified	1	11	25
Chemicals and petroleum chemicals, miscellaneous	9	9	7
Coke, coal type .....	.....	3	21
Grains, miscellaneous	45	37	52
Lumber and products	118	172	137
Boards and planks	13	7	7

**Table 11.—Important Commodity Shipments Over Principal Trade Routes
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
WEST COAST SOUTH AMERICA TO EUROPE—Continued			
Lumber and products—Continued			
Pulpwood.....	98	153	97
Other and unclassified.....	7	12	33
Manufactures of iron and steel.....	11	.....	.....
Nitrates, phosphates, and potash.....	733	895	964
Ammonium compounds.....	23	.....	.....
Fertilizers, unclassified.....	.....	11	17
Fishmeal.....	646	737	861
Nitrate of soda.....	64	147	82
Potash.....	.....	.....	4
Ores and metals.....	1,415	1,564	1,890
Ores.....	759	730	1,043
Copper.....	111	103	206
Iron.....	.....	53	101
Lead.....	101	64	105
Tin.....	21	30	36
Zinc.....	500	448	525
Other and unclassified.....	26	32	70
Metals.....	656	834	847
Copper.....	563	667	585
Lead.....	34	41	41
Zinc.....	40	54	135
Other and unclassified.....	19	72	86
Other agricultural commodities.....	209	357	320
Cocoa and cacao beans.....	12	9	14
Coffee.....	143	189	204
Cotton, raw.....	11	30	27
Molasses.....	13	.....	.....
Oilseeds.....	5	1	3
Sugar.....	12	107	59
Wool, raw.....	10	16	9
Other and unclassified.....	3	5	4
Petroleum and products.....	.....	3	.....
Other and unclassified.....	.....	3	.....
Miscellaneous.....	346	253	292
Groceries, miscellaneous.....	12	6	15
Oil, fish.....	109	54	125
Paper and paper products.....	13	5	8
Seeds, excluding oilseeds.....	1	.....	1
Textiles.....	7	9	6
All other and unclassified.....	204	179	137
Total.....	3,585	4,016	4,692
HAWAII TO EAST COAST UNITED STATES:			
Other agricultural commodities.....	129	196	50
Sugar.....	129	196	50
Miscellaneous.....	12	19	7
All other and unclassified.....	12	19	7
Total.....	141	215	57
OCEANIA TO EAST COAST UNITED STATES:			
Canned and refrigerated foods.....	311	378	405
Refrigerated foods.....	311	378	405
Dairy products.....	.....	1	5
Fruit, refrigerated.....	8	61	77
Meat.....	23	12	1
Other and unclassified.....	280	303	322

**Table 11.—Important Commodity Shipments Over Principal Trade Routes
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
OCEANIA TO EAST COAST UNITED STATES—Continued			
Chemicals and petroleum chemicals, miscellaneous	10	9	31
Manufactures of iron and steel, miscellaneous	64	62	40
Ores and metals	1,175	418	497
Ores	1,156	376	481
Alumina/bauxite	611	31	66
Iron	53	.....	.....
Lead	5	53	4
Manganese	61	47	55
Other and unclassified	426	245	356
Metals	19	42	16
Aluminum metal . . . . .	.....	25	.....
Lead metal	11	11	6
Zinc . . . . .	.....	1	1
Other and unclassified	8	5	15
Other agricultural commodities	445	311	634
Molasses	203	101	233
Sugar	242	210	398
Wool, raw . . . . .	.....	.....	3
Petroleum and products	241	100	191
Crude oil . . . . .	.....	.....	36
Fuel oil, residual	160	100	115
Other and unclassified	81	.....	40
Miscellaneous	382	372	352
All other and unclassified	382	372	352
Total	2,628	1,650	2,150
OCEANIA TO EAST COAST CANADA:			
Canned and refrigerated foods	33	55	37
Refrigerated foods	33	55	37
Other and unclassified	33	55	37
Ores and metals	76	25	12
Ores, miscellaneous	76	25	12
Other agricultural commodities	347	216	303
Sugar	347	216	303
Miscellaneous	35	54	49
All other and unclassified	35	54	49
Total	491	350	401
OCEANIA TO EAST COAST CENTRAL AMERICA:			
Canned and refrigerated foods, miscellaneous	28	12	20
Coal	22	.....	.....
Ores and metals	37	86	46
Manganese ore	22	39	.....
Ores, miscellaneous	15	47	46
Miscellaneous	4	6	14
All other and unclassified	4	6	14
Total	91	104	80
OCEANIA TO WEST INDIES:			
Canned and refrigerated foods	143	74	32
Canned foods, miscellaneous	10	4	7
Refrigerated foods	133	70	25
Dairy products	6	5	1
Fish, refrigerated	113	50	9
Meat	5	8	14
Other and unclassified	9	7	1

**Table 11.—Important Commodity Shipments Over Principal Trade Routes
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
OCEANIA TO WEST INDIES—Continued			
Miscellaneous	58	11	32
All other and unclassified	58	11	32
Total	201	85	64
OCEANIA TO EUROPE:			
Canned and refrigerated foods	186	185	298
Refrigerated foods	186	185	298
Dairy products .....	.....	6	15
Fruit, excluding bananas	92	53	75
Meat	2	.....	59
Other and unclassified	92	126	149
Chemicals and petroleum chemicals, miscellaneous	115	.....	.....
Grains, miscellaneous	74	.....	.....
Ores and metals	72	155	277
Ores	58	79	217
Alumina/bauxite	38	.....	.....
Copper .....	.....	71	201
Other and unclassified	20	8	16
Metals	14	76	60
Copper .....	.....	35	26
Zinc .....	.....	15	.....
Other and unclassified	14	26	34
Other agricultural commodities	271	251	232
Copra	7	11	9
Molasses	20	69	90
Skins and hides .....	.....	1	1
Sugar	236	166	123
Wool, raw	8	4	9
Miscellaneous	287	296	335
Groceries, miscellaneous .....	.....	1	.....
Oil, coconut	8	5	44
Oil, vegetable	26	24	23
Tallow	32	5	5
All other and unclassified	221	261	263
Total	1,005	887	1,142
ASIA TO EAST COAST UNITED STATES:			
Canned and refrigerated foods	175	205	149
Canned foods	90	64	79
Fruit	85	45	61
Vegetables	1	6	9
Other and unclassified	5	13	9
Refrigerated foods	85	141	70
Fruit, refrigerated	9	78	15
Other and unclassified	76	63	55
Chemicals and petroleum chemicals, miscellaneous	69	108	118
Coal and coke	183	.....	45
Lumber and products	693	641	414
Boards and planks	58	37	13
Plywood, veneers, composition board	591	585	357
Other and unclassified	44	19	44
Machinery and equipment	1,369	1,210	1,258
Agricultural machinery	24	11	10

**Table 11.—Important Commodity Shipments Over Principal Trade Routes
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
ASIA TO EAST COAST UNITED STATES—Continued			
Machinery and equipment—Continued			
Automobiles, trucks, accessories and parts	1,275	1,131	1,164
Construction machinery and equipment	45	19	34
Electrical machinery and apparatus	12	13	21
Other and unclassified	13	36	29
Manufactures of iron and steel	4,931	2,905	4,311
Angles, shapes, and sections	277	348	459
Nails, tacks, and spikes	102	59	84
Plates, sheets, and coils	1,852	1,035	896
Tubes, pipes, and fittings	951	564	1,438
Wire, bars, and rods	320	174	220
Other and unclassified	1,429	725	1,214
Nitrates, phosphates, and potash	2	2	2
Fertilizers, unclassified	2	2	2
Ores and metals	1,054	901	1,124
Ores	1,018	835	1,059
Alumina/bauxite	143	43	102
Chrome	28	11	38
Manganese	7	1	11
Other and unclassified	840	780	908
Metals	36	66	65
Aluminum	30	29	32
Copper	1	7	5
Iron .....	.....	1	20
Zinc .....	.....	.....	1
Other and unclassified	5	29	7
Other agricultural commodities	532	323	411
Coffee	5	8	1
Copra	3	1	1
Rubber, raw	92	56	35
Sugar	428	251	373
Other and unclassified	4	7	1
Petroleum and products, miscellaneous	676	141	375
Miscellaneous	4,660	3,611	3,283
Bricks and tile	3	1	2
Clay, fire and china	1	2	.....
Fibers, plant	1	1	2
Glass and glassware	2	4	7
Groceries, miscellaneous	10	7	9
Oil, coconut	43	63	56
Oil, vegetable	5	32	93
Porcelainware	2	2	1
Rubber, manufactured	33	41	18
Textiles	16	6	9
All other and unclassified	4,544	3,452	3,086
Total	14,344	10,047	11,490
ASIA TO EAST COAST CANADA:			
Canned and refrigerated foods, miscellaneous	5	1	1
Machinery and equipment .....	.....	6	2
Other and unclassified .....	.....	6	2
Manufactures of iron and steel	7	30	18
Plates, sheets, and coils .....	.....	10	6
Tubes, pipes, and fittings	4	9	9
Wire, bars, and rods .....	.....	2	3
Other and unclassified	3	9	.....

**Table 11.—Important Commodity Shipments Over Principal Trade Routes
Pacific to Atlantic—Continued**

[Thousands of long tons]

	Fiscal year		
	1984	1983	1982
ASIA TO EAST COAST CANADA—Continued			
Ores and metals, miscellaneous	55	6	1
Ores	55	6	.....
Alumina/bauxite	55	6	.....
Metals .....	.....	.....	1
Other and unclassified .....	.....	.....	1
Miscellaneous	327	278	262
All other and unclassified	327	278	262
Total	394	321	284
ASIA TO EAST COAST CENTRAL AMERICA:			
Chemicals and petroleum chemicals, miscellaneous .....	.....	70	276
Grains, miscellaneous	21	.....	.....
Machinery and equipment, miscellaneous	3	.....	4
Manufactures of iron and steel, miscellaneous	8	14	71
Ores and metals, miscellaneous .....	.....	58	43
Ores, miscellaneous .....	.....	58	43
Miscellaneous	15	27	24
All other and unclassified	15	27	24
Total	47	169	418
ASIA TO EAST COAST SOUTH AMERICA:			
Chemicals and petroleum chemicals, miscellaneous	2	4	4
Machinery and equipment	42	72	70
Automobiles, trucks, accessories and parts	16	19	29
Construction machinery and equipment	6	32	6
Electrical machinery and apparatus	9	11	13
Other and unclassified	11	10	22
Manufactures of iron and steel	161	230	522
Plates, sheets, and coils	72	91	141
Tubes, pipes, and fittings	46	86	293
Other and unclassified	43	53	88
Nitrates, phosphates, and potash .....	.....	4	.....
Fertilizers, unclassified .....	.....	4	.....
Ores and metals	15	32	47
Ores	2	22	8
Chrome .....	.....	.....	8
Other and unclassified	2	22	.....
Metals	13	10	39
Tin, including tinplate	6	3	4
Other and unclassified	7	7	35
Other agricultural commodities	3	4	4
Rubber, raw	3	4	4
Petroleum and products .....	.....	2	2
Other and unclassified .....	.....	2	2
Miscellaneous	157	186	341
Glass and glassware .....	.....	1	1
Resin	1	1	3
Rubber, manufactured	1	6	10
Textiles	1	2	6
All other and unclassified	154	176	321
Total	380	534	990

**Table 11.—Important Commodity Shipments Over Principal Trade Routes
Pacific to Atlantic—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	1984	1983	1982
ASIA TO CRISTOBAL, R.P.:			
Machinery and equipment	12	4	7
Electrical machinery and apparatus.....	2	1	1
Other and unclassified	10	3	6
Manufactures of iron and steel, miscellaneous	22	20	21
Miscellaneous	93	81	103
Textiles.....	1	2	1
All other and unclassified	92	79	102
Total.....	127	105	131
ASIA TO WEST INDIES:			
Canned and refrigerated foods	50	43	43
Canned foods, miscellaneous	24	30	27
Refrigerated foods	26	13	16
Fish, refrigerated	24	13	16
Other and unclassified	2	.....	.....
Chemicals and petroleum chemicals, miscellaneous	10	7	12
Coal and coke	8	21	21
Grains.....	94	116	113
Corn	6	.....	2
Rice.....	83	106	111
Soybeans	5	10	.....
Lumber and products	184	133	143
Boards and planks	160	96	97
Plywood veneers	13	19	23
Pulpwood.....	10	12	8
Other and unclassified	1	6	15
Machinery and equipment	182	158	151
Automobiles, trucks, accessories and parts	161	144	127
Electrical machinery and apparatus.....	5	3	4
Other and unclassified	16	11	20
Manufactures of iron and steel	124	152	126
Plates, sheets, and coils	67	70	52
Tubes, pipes, and fittings	32	30	36
Other and unclassified	25	52	38
Nitrates, phosphates and potash	33	.....	2
Fertilizers, unclassified.....	31	.....	.....
Fishmeal.....	2	.....	2
Ores and metals	14	8	20
Metals, miscellaneous	7	4	13
Ores, miscellaneous	7	4	7
Petroleum and products	121	.....	5
Diesel oil	4	.....	4
Gasoline	117	.....	.....
Other and unclassified .....	.....	.....	1
Miscellaneous	291	316	262
Bricks and tile	3	3	4
Glass and glassware	2	5	4
Groceries, miscellaneous .....	.....	1	2
Paper and paper products.....	13	16	5
Porcelainware	1	1	1
Resin.....	.....	1	1
Rubber, manufactured.....	4	1	3
Textiles.....	6	6	10
All other and unclassified	262	282	232
Total.....	1,111	954	898

**Table 11.—Important Commodity Shipments Over Principal Trade Routes
Pacific to Atlantic—Continued**

[Thousands of long tons]

	<i>Fiscal year</i>		
	<i>1984</i>	<i>1983</i>	<i>1982</i>
ASIA TO EUROPE:			
Canned and refrigerated foods	4	15	6
Chemicals and petroleum chemicals, miscellaneous	3	3	12
Coke, coal type .....	.....	32	46
Machinery and equipment	4	3	10
Automobiles, trucks, accessories and parts	2	3	10
Other and unclassified	2	.....	.....
Ores and metals, miscellaneous	2	.....	29
Other agricultural commodities .....	.....	23	.....
Sugar raw .....	.....	23	.....
Petroleum and products, miscellaneous	4	.....	58
Miscellaneous	83	85	69
Oil, coconut	24	19	.....
Oil, fish	37	31	27
Oil, vegetable	2	.....	8
All other and unclassified	20	35	34
Total	100	161	230

Table 12.—Principal Canal Commodities by Direction—Fiscal Year 1984

[Long tons]

<i>Commodity</i>	<i>Atlantic to Pacific</i>	<i>Pacific to Atlantic</i>	<i>Total</i>
Ammonium compounds.....	534,564	48,194	582,758
Asbestos	18,272	4,137	22,409
Asphalt	155,120	7,752	162,872
Automobiles, trucks, and accessories.....	291,978	1,464,446	1,756,424
Bananas	7,281	810,586	817,867
Barley	16,217	533,118	549,335
Beans, edible	41,794	46,362	88,156
Benzene.....	39,670	38,457	78,127
Borax	5,320	414,453	419,773
Bricks and tile	23,761	10,935	34,696
Canned food products	110,066	222,052	332,118
Carbon black	4,301	654	4,955
Caustic soda.....	926,776	40,854	967,630
Cement	173,650	4,680	178,330
Chemicals, petroleum various	876,875	51,859	928,734
Chemicals, various	2,284,963	848,197	3,133,160
Clay, fire and china	357,338	24,945	382,283
Coal and coke (excluding petroleum coke) ..	8,114,756	1,839,461	9,954,217
Cocoa and cacao beans	3,424	48,928	52,352
Coffee	9,394	457,502	466,896
Coke, petroleum	459,978	1,752,350	2,212,328
Copra and coconuts	644	10,649	11,293
Corn	9,490,137	6,769	9,496,906
Cotton, raw	14,522	109,552	124,074
Fertilizers, various.....	1,489,549	58,961	1,548,510
Fibers, plant.....	40,489	14,514	55,003
Fishmeal	146	724,813	724,959
Flour, wheat.....	218,886	30,805	249,691
Gasoline	983,101	760,179	1,743,280
Glass and glassware	23,960	6,437	30,397
Grains, various	84,255	142,982	227,237
Groceries, various	35,926	37,409	73,335
Infusorial earth	8,714	8,921	17,635
Jet fuel	593,446	76,785	670,231
Kerosene	103,963	9	103,972
Liquefied gas	737,363	46,254	783,617
Liquors	16,141	6,815	22,956
Lumber and products (excluding pulpwood) ..	55,430	4,314,158	4,369,588
Machinery, agricultural	59,284	32,411	91,695
Machinery, construction	91,140	68,623	159,763
Machinery, electrical.....	41,026	29,260	70,286
Machinery, various	66,121	36,480	102,601
Manufactures of iron and steel	1,842,064	5,424,091	7,266,155
Metal, aluminum.....	308,901	53,121	362,022
Metal, copper.....	33,104	885,466	918,570
Metal, iron	86,660	7,843	94,503
Metal, scrap	2,227,015	2,556	2,229,571
Metals, various (including tinplate)	91,113	254,201	345,314
Molasses	3,227	672,371	675,598
Nitrate of soda.....	84,437	169,781	254,218
Oats	9,085	14,621	23,706
Oil, coconut	3,572	91,854	95,426
Oil, crude	3,898,360	10,267,133	14,165,493
Oil, diesel	1,129,458	815,191	1,944,649
Oil, fish	16,835	164,393	181,228
Oil, lubricating.....	689,285	167,438	856,723
Oil, residual fuel	3,007,038	3,835,746	6,842,784
Oil, vegetable	247,018	95,478	342,496
Oilseeds	35,939	336,304	372,243
Ore, alumina/bauxite	454,023	891,864	1,345,887
Ore, copper .....	.....	389,512	389,512

Table 12.—Principal Canal Commodities by Direction—Fiscal Year 1984—
Continued

[Long tons]

<i>Commodity</i>	<i>Atlantic to Pacific</i>	<i>Pacific to Atlantic</i>	<i>Total</i>
Ore, iron	11,286	72,731	84,017
Ores, various	422,412	2,471,194	2,893,606
Paper and paper products	761,427	368,471	1,129,898
Peas, dry	382	47,693	48,075
Petroleum and products, various	797,570	377,758	1,175,328
Phosphates	6,395,119	86,163	6,481,282
Potash	113,469	174,921	288,390
Pulpwood	558,726	1,434,788	1,993,514
Refrigerated food products (excluding bananas)	447,564	1,710,405	2,157,969
Resin	167,901	2,630	170,531
Rice	117,197	517,207	634,404
Rubber, manufactured	44,576	38,291	82,867
Rubber, raw	463	96,202	96,665
Salt	77,451	696,231	773,682
Seeds, excluding oilseeds	1,287	9,638	10,925
Slag, clinkers, and dross	71,676	1,198	72,874
Soda and sodium compounds	55,167	136,052	191,219
Sorghum	1,321,691	36	1,321,727
Soybeans	6,837,354	61,387	6,898,741
Sugar	1,493,408	2,178,612	3,672,020
Sulfur	12,520	2,430,820	2,443,340
Tallow	66,404	39,868	106,272
Textiles	47,136	43,486	90,622
Tobacco and manufactures	9,558	4,370	13,928
Toluene	51,956	65	52,021
Wax, paraffin	15,533	17,104	32,637
Wheat	7,213,478	1,756,966	8,970,444
Wool, raw	68	19,107	19,175
All other	8,369,645	7,686,453	16,056,098
Total	<u>78,259,299</u>	<u>62,211,519</u>	<u>140,470,818</u>

Other Statistics

Table 13.—Water Supply and Usage

	Fiscal year		Percent of usage fiscal year	
	1984	1983	1984	1983
	(Acre feet)			
MADDEN AND GATUN LAKE WATER SUPPLY:				
Total runoff, Madden Lake Basin	2,160,415	1,334,650		
Evaporation from Madden Lake	44,821	36,993		
Municipal water use Madden Lake	81,865	80,028		
Available for Madden Lake usage	2,033,729	1,217,629		
Total runoff, Gatun Lake (area below Madden) ...	2,775,947	1,637,906		
Subtotal	4,809,676	2,855,535		
Evaporation from Gatun Lake	433,455	444,508		
Available for Gatun watershed usage.....	4,376,221	2,411,027		
MADDEN LAKE WATER USAGE:				
Hydroelectric power	1,457,483	1,165,151	81	88
Leakage.....	14,519	14,479	1	1
Spillway discharge.....	241,093	62,351	13	5
Municipal	81,865	80,028	5	6
Total Madden Lake usage	1,794,960	1,322,009	100	100
GATUN LAKE WATER USAGE:				
Hydroelectric power	1,711,708	425,023	43	18
Lockages, Gatun and Pedro Miguel.....	1,876,653	1,858,609	47	78
Municipal and other usages	94,975	94,654	2	4
Spillway discharge.....	303,007	.....	8	...
Total Gatun Lake usage.....	3,986,343	2,378,286	100	100

Table 14.—Dredging Operations—Fiscal Year 1984

	(Cubic yards)		
	Earth	Rock	Total
Pacific District .....	.....	.....	.....
Central District	2,578,415	452,045	3,030,460
Atlantic District .....	.....	.....	.....
Grand Total	2,578,415	452,045	3,030,460

Table 15.—Electrical Power Generated(Gigawatt hours) ¹

	Fiscal year	
	1984	1983
Generation:		
Gatun hydro station	93	27
Madden hydro station	162	114
Thermal generating stations	<u>347</u>	<u>440</u>
Gross generated by Panama Canal Commission	602	581
Less station service usage	<u>(13)</u>	<u>(16)</u>
Net total generated by Panama Canal Commission	589	565
Power Purchases:		
Through interconnect from Panama	2	.....
Net Energy charged for Wheeling	8	9
Power Sales:		
Through interconnect to Panama	(66)	(7)
Net power generated and purchases for Canal area only	533	567
Other power generated by military for own use	<u>....</u>	<u>....</u>
Total Canal area requirements	533	567
Power distributed to Commission's customers	488	523
Distribution losses	45	44
Peak load (thousands of kilowatts)	84	91
Date of peak load	Feb. 27	Apr. 4
Canal area load factor ²	72.6%	71.4%

¹ One gigawatt hour equal to 1 million kilowatt hours.² Total Canal area requirements divided by number of hours per year times peak load.**Table 16.—Fire Statistics**

	Fiscal Year 1983		Fiscal Year 1984	
	Number of fires	Property loss	Number of fires	Property loss
PCC	86	\$168,887	164	\$8,259
Armed Forces	329	36,280	474	43,710
Private (including ships)	61	372,066	82	189,768
R.P.*	104	50,830	265	9,195
Total	<u>580</u>	<u>\$628,063</u>	<u>985</u>	<u>\$250,932</u>
Value of Property involved in ship fires		\$103,418,187		\$46,626,259
Value of Property involved in other fires		90,789,357		100,950,457
Calls for emergency aid **		2,729		2,926
Total number of calls (all types) responded to		3,453		4,102

* Statistics started as of October 1, 1979 due to the Treaty implementation.

** Includes Fire Apparatus and Ambulance.

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